

THE

Desert

M A G A Z I N E



MAY, 1949

35 CENTS

Plan Your Home in *Palm Desert*

Here is a desert community in a sheltered cove of the Santa Rosa mountains with fine water, excellent drainage, surfaced streets, electricity, natural gas, telephones, new school under construction—an ideal location where you can enjoy all today's conveniences in the clean atmosphere of a well-planned desert community.

Residential Lots:

Range in size from 60x110 feet for the smaller bungalows or weekend cottages, up to one and two acre exclusive estates.

Prices range from \$950 for the smallest to approximately \$6,500 an acre for Estate sites.

Residential Income:

This includes choice hotel sites, as well as lots zoned for 2, 4, 6 and 8 rental units, depending upon size and location with prices starting at \$2,550.

Commercial or Business:

Includes lots facing on the Palm Springs-Indio Highway and on El Paseo, the divided business street which branches off the Highway and continues through Palm Desert for approximately two miles before again joining the Highway.

These lots average 50x112 feet, with an additional 100 feet for parking in the rear of each lot. Each business block is being built around a

parking court with building facing either the Palm Springs-Indio Highway or El Paseo—each building having an entrance from the street and from the parking area. These lots start at \$7,500.

Building Requirements:

Sensible and cooperative architectural control of all structures protects the charm of the complete community plan and, therefore, protects the value for the property owners.

All plans must be approved by the Palm Desert Architectural Committee. A minimum of 800 sq. ft. will be allowed on the small weekend cottage sites; 1000 sq. ft. on small homesites; 1200 sq. ft. on the Shadow Mountain Estates; 1500 sq. ft. on the Palm Desert Ranchos.

Ownership Requirements:

Prospective property purchasers must qualify for membership in either the Palm Desert Community Association or the Shadow Mountain Club, depending upon the type of property being purchased.

NEARLY \$250,000 IN NEW HOMES ARE NOW
UNDER CONSTRUCTION IN THE PALM DESERT
COMMUNITY

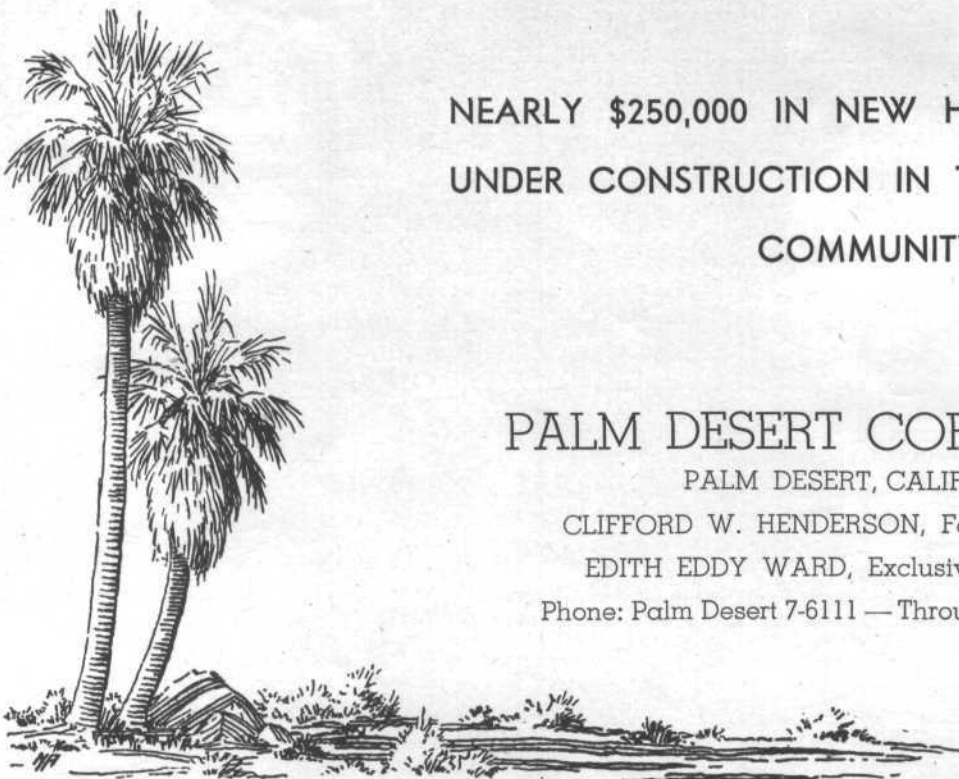
PALM DESERT CORPORATION

PALM DESERT, CALIFORNIA

CLIFFORD W. HENDERSON, Founder, President

EDITH EDDY WARD, Exclusive Sales Agent

Phone: Palm Desert 7-6111 — Through Indio Exchange



Tract Office on Palms-to-Pines
Highway Just Off Highway 111—
Or See Your Own Broker

DESERT CALENDAR

April 29 — Biology Series: Evolution and the Geologic Periods. Palm Springs Desert Museum 8 p.m.

May 1—Fishing season will open for Desert areas.

May 1—Boat race of the Colorado River Racing association at Yuma, Arizona.

May 1—Annual speed boat regatta on Lake Moovalya, Parker, Arizona.

May 1—Annual horse show, Sonoita, Arizona.

May 1—Annual fiesta and spring corn dance, San Felipe pueblo, New Mexico.

May 1, 7-8—Ramona Pageant, Ramona Bowl, Hemet, California.

May 3—Cross day, dance and ceremonial races, Taos pueblo, New Mexico.

May 7—Annual Southern California reunion picnic of former residents of New Mexico, Arizona, Utah and Nevada at Sycamore Park, Los Angeles.

May 7-29—Annual wildflower show, Julian, California. Community Hall, daily except Fridays. Mrs. Myrtle Botts, chairman.

May 7-8—Sierra club hike. Two-day trip to climb Owens Peak at southern end of the Sierras overlooking Inyokern. Over-night camp.

May 7-8 — Fourth annual Indian Wells valley stampede, stampede grounds near Ridgecrest, California.

May 8—"Fiestas de Mayo," commemorating Mexican Independence Day. Parade, street dances, festivals. Celebrated in Nogales, Arizona, and Sonora.

May 12-15 — Annual Helldorado Days. Pageant-odeo, parades, whisker derby, kangaroo court, horse racing, dances. Las Vegas, Nevada.

May 13-14—Third annual Lions club festival and barbeque. Swimming events, kiddies parade. Valley Wells, California, four miles northeast of Trona.

May 20-22 — Calico Days Celebration. Parade, horse show, carnival and dancing, rodeo. Yermo, California.

May 22—Horse show, State fair grounds, Albuquerque, New Mexico.

May 28-30—Sierra club hike. Climb Glass mountain situated between the High Sierra and the White mountains. Elevation 11,127 feet.

May 29—Annual Fiesta of San Felipe de Neri. Parades, dancing, carnival. Albuquerque, New Mexico.

May—Special exhibit, Fred K. Hinchman Memorial Collection—examples of pottery, basketry, silver jewelry, Plains Indian beadwork, etc. Southwest Museum, Highland Park, Los Angeles, California.



Volume 12

MAY, 1949

Number 7

COVER	SEXTETTE IN YELLOW. Photographed in Cajon Pass, California by Nicholas N. Kozloff, San Bernardino, California.	
CALENDAR	April events on the desert	3
EXPLORATION	Salt Water Trail on the Desert By DAVID E. MILLER	4
PHOTOGRAPHY	Contest winners in March	9
INDIANS	Black Magic of the Cahuilla By JOHN HILTON	10
HUMOR	Hard Rock Shorty of Death Valley	12
FIELD TRIP	Magic Rocks of the Saucedas By HAROLD O. WEIGHT	14
DESERT QUIZ	A test of your desert knowledge	18
PERSONALITY	He Brings the Desert to Your Garden By GEORGE M. ROY	20
CONTEST	Prizes to Photographers	23
CRAFTS	Skilled Hands at the Loom By JIMMIE BREWER	24
POETRY	Queen of the Night, and other poems	26
LETTERS	Comment from Desert's Readers	27
WILDFLOWERS	Monthly forecast for May	28
ART	Director, Palm Desert Art Gallery	29
CLOSE-UPS	About those who write for Desert	30
NEWS	From here and there on the desert	31
MINING	Current news of desert mines	40
HOBBY	Gems and minerals	41
LAPIDARY	Amateur Gem Cutter, by Leland Quick	45
COMMENT	Just Between You and Me, by the Editor	46
BOOKS	Reviews of Southwestern Literature	47

The Desert Magazine is published monthly by the Desert Press, Inc., Palm Desert, California. Re-entered as second class matter July 17, 1948, at the post office at Palm Desert, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1949 by the Desert Press, Inc. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor
MARION HEWES, Associate Editor
BESS STACY, Business Manager
MARTIN MORAN, Circulation Manager

Unsolicited manuscripts and photographs submitted cannot be returned or acknowledged unless full return postage is enclosed. Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised. Subscribers should send notice of change of address by the first of the month preceding issue.

SUBSCRIPTION RATES

One Year . . . \$3.50 Two Years . . . \$6.00

Canadian Subscriptions 25c Extra, Foreign 50c Extra

Subscription to Army Personnel Outside U. S. A. Must Be Mailed in Conformity With P. O. D. Order No. 19687

Address Correspondence to Desert Magazine, Palm Desert, California



Lakemobile constructed by Charles Stoddard for use on his salt water trails. This is the vehicle that was struck by an iceberg and nearly wrecked in 1942. Stoddard used the vehicle regularly for transporting sheep and supplies to Fremont Island.

Salt Water Trail on the Desert

Yes, strange things happen on the Great American Desert—and none, perhaps, will be more surprising than the realization that it is possible to drive many miles across portions of the Great Salt Lake in a motor vehicle. Here is the story of the man who first charted the salt water trails—and who for many years has used them in his sheep and ranching business.

By DAVID E. MILLER

"**7**HIS is the place where I was struck by an iceberg in 1942!" said Charles Stoddard. "I was driving a truck . . . Yes, it was right out here in the middle of the Great Salt Lake."

Everyone knows that Salt Lake never freezes. And what was Charles Stoddard doing in a truck in the middle of the lake?

And yet what he told me that day as our truck rolled along in a foot of salt water several miles from the nearest shore was the truth. And this is how it happened:

In the cold calm winter weather fresh water at the mouths of tributary streams literally floats on the dense lake brine and freezes into ice several inches thick. This ice then drifts about the lake in huge sheets, sometimes doing damage to boats and shore installations. It was such an ice floe that struck Stoddard's truck in March, 1942.

This slowly moving mass of ice jammed against the side of the truck. Up it went on two wheels. The ice cracked and broke. The vehicle settled back. Again the ice wedged in and again it broke and the truck settled back. There was no place to turn

around. The "lakemobile" would soon be wrecked in the briny water.

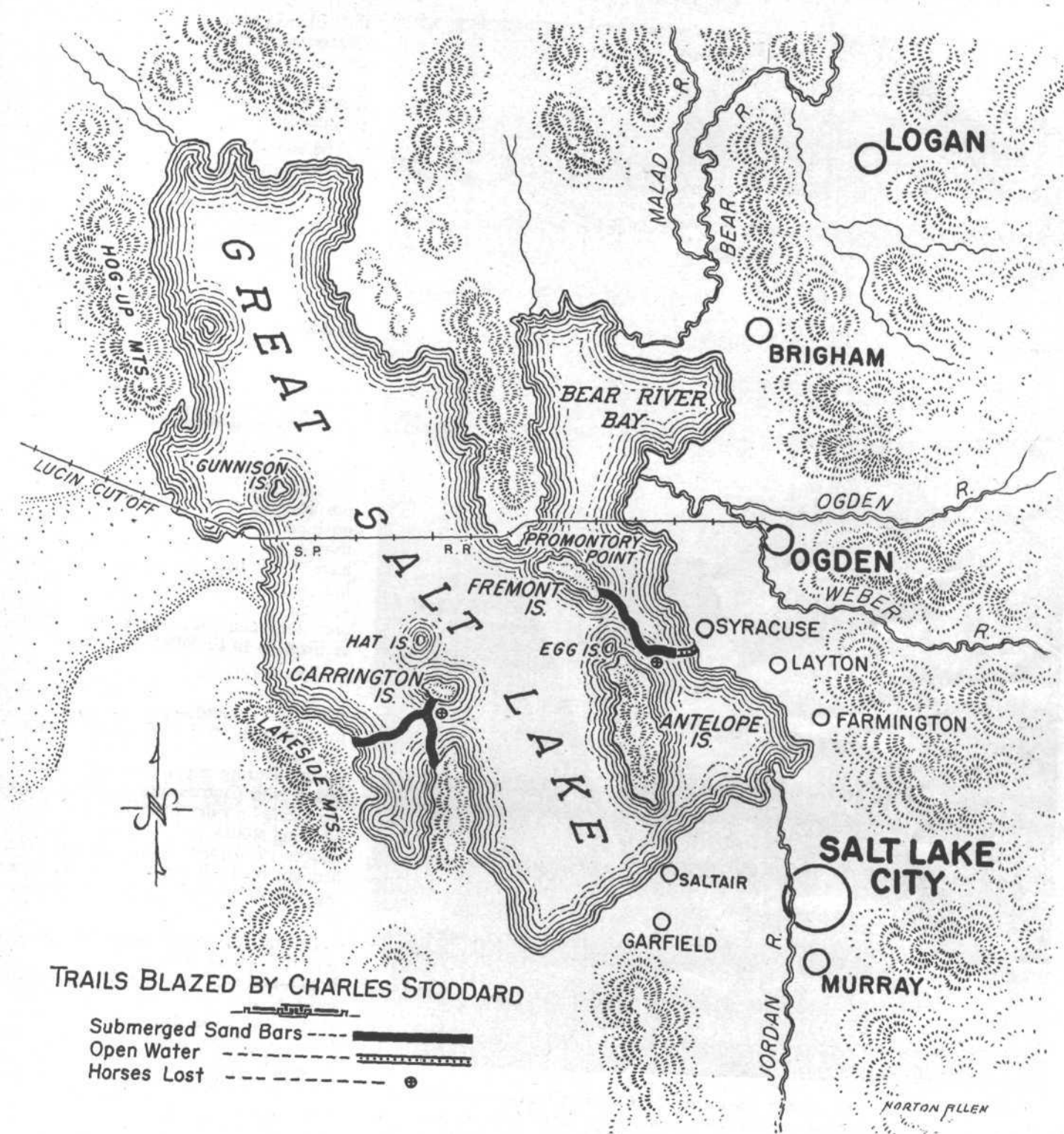
"With the aid of a crow bar I shifted the front end around toward the south. The ice got behind it," continued Stoddard, "and pushed it out into the lake."

Stoddard escaped over the ice as his truck drifted away. About a mile south of the regular course, the ice was grounded and the vehicle deposited in a bog.

The following November Stoddard went out to his truck, drained the salt impregnated oil, removed the spark plugs and poured a small quantity of kerosene into the cylinders to loosen them. In a few minutes the motor started without trouble and the machine pulled out under its own power.

Sheets of ice, broken up by the wind and blown into piles 30 feet high and hundreds of feet wide—icebergs—have been seen floating about the lake from time to time. Interested people have visited these ice floes and climbed about upon them in perfect safety.

Stoddard showed me the site of his iceberg accident as we were returning from Fremont island in a small boat mounted on a two-wheeled trailer which was being pulled by a team of horses. Now, that's not the ideal way to cross the lake, but there was a reason for doing it. Stoddard had two horses on the island and needed them



at his farm on the mainland. This was the easiest way to get them home.

Our route was a submerged sand bar which Stoddard had charted just for this purpose. To me it looked like heading into the open sea except for the fact that the water was so shallow. How could the driver be sure he was on the course? I asked Stoddard that question. The answer soon became apparent as he pointed out a railroad tie standing upright in the shallow water about a half-mile from shore. Other

similar markers, placed at regular intervals, clearly pointed out the route which we followed without difficulty. The "trail" was approximately ten miles long. It took us several hours to make the trek. During the ride my companion told me many of his lake ventures. What I learned proved that Charles Stoddard of West Point, Utah, is one of the most progressive and ingenious navigators ever to cruise Great Salt Lake.

He is one of approximately 300

boatmen who regularly ply the Great Salt Lake for both business and pleasure. He has spent much of the past 20 years cruising and exploring the lake, sounding its channels, bringing civilization to its islands, and literally blazing trails through its shallow waters. Few men today know more about the lake or have spent more time on it and its islands than he.

For several years, Stoddard has been leasing Fremont island for use as a sheep range. This island, third largest



David E. Miller, the author, measures the Carson Cross on the peak of Fremont island. Carved in 1843 when he visited the island with the John C. Fremont party, the origin of the inscription which was first observed by Stansbury in 1850, remained a mystery until the publication of "Kit Carson's Own Story" in 1926. Heedless visitors daubed the rock with white paint in recent years.

in the lake, is approximately 15 miles in circumference and extends 800 feet above the lake level at its highest point. It lies directly between Antelope island and Promontory point. From the southern tip the land rises gradually about five miles to the summit where Captain John C. Fremont made his observations and lost his telescope cap over a century ago. From that point the land

falls off at a steep angle to the north and east. Sufficient grass and other small plants grow on the island to provide an excellent range for sheep. It has been used for that purpose for three-quarters of a century. The slopes are dotted with peculiar wind-eroded rock formations. As I climbed to the peak to examine the Carson Cross, carved by Kit Carson when he visited

the island with Fremont in 1843, (*Desert Magazine Feb. 1942*) I passed several of these formations. Half-wild sheep that had sought the shade of these rocks, scurried away as we approached.

The island has miles of fine beaches and acres of excellent sand. Near the south tip stands the ruins of the old Wenner house, a mute witness of the days when Fremont island was a happy home. (*Desert Magazine Feb. 1944*). On the brow of the hill, behind the house, is the Wenner grave enclosed by a fine wire fence, built by Charles Stoddard a few years ago. During the summer of 1948 he also constructed a cairn (built of rocks taken from the walls of the old house) as a permanent monument to those who lie buried there. On November 6, 1948 Stoddard transferred the bronze plaque, containing the vital statistics concerning Judge Wenner and his wife, from its former position on the gate to a permanent position on the cairn he had built. Although his activities at the grave site have never been publicized, Stoddard has played a major role in keeping it in order. He has a great deal of respect and sentiment for those who took civilization to Fremont island.

Long before the coming of the white man, Fremont island was the home of the Indian. Although no Indian skeletons have been found there, definite evidences of their existence have been found. During my recent visit to the island with Charles and Earl Stoddard we located a ridge literally strewn with grinding stones and metates, mute evidences of former Indian camps. We brought back all we could carry, having merely picked them up from the surface of the ground.

During reasonably high water periods the island is accessible only by boat—and that condition has prevailed most of the time since Fremont first visited it in 1843. However, during the lake's low cycle beginning in the mid 1930's, Stoddard devised a means of reaching the island by truck or motor car. Being an experienced lake man he discovered the sandbar extending southward from the southeast tip of the island. Although this bar was completely submerged most of the time, he was able to follow and chart it. Stoddard followed the bar in a southerly direction to a point west of Syracuse (just east of the north end of Antelope island) from which point he went eastward in relatively shallow water and reached the mainland. By driving stakes along the bar and across the most shallow part of the intervening water—being careful to avoid quicksand bogs—he was able to

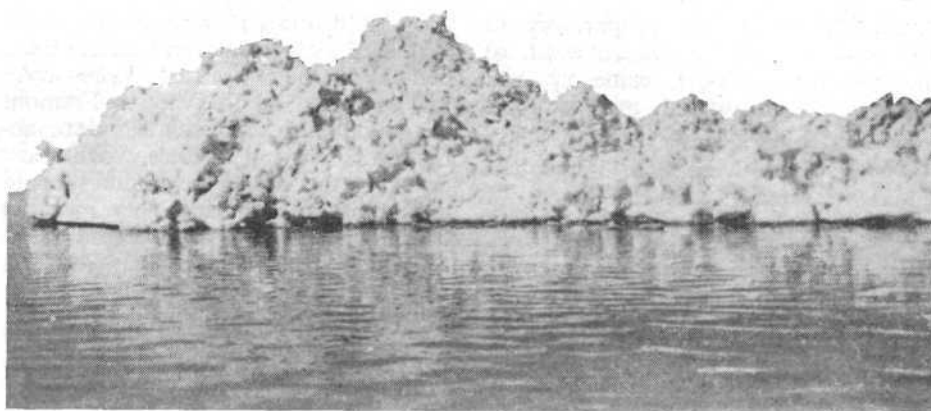
blaze a trail to Fremont island in the middle of Great Salt Lake. This route could be "navigated" by horseback, wagon, truck or touring car. On one occasion three youths rode bicycles to the island. It was this route we were following as Stoddard related his lake experiences.

This new course traversed the old steamship route followed by early steamboats on the lake. During the 1870's, the *City of Corinne*, a 240-ton Mississippi river type vessel made regular trips across this bar where we found only six inches of water.

Stoddard had blazed a similar trail homesteading that desolate place during the 1930's.

Since wagon travel was too slow for the sheep business, Stoddard invented a lake going truck — a "lakemobile". This was accomplished by building some large caterpillar-like chains or cleats for the rear wheels of an "A" model Ford truck. A Fordson tractor radiator was attached to give the vehicle a better cooling system. This novel machine proved entirely lake-worthy. By following the charted course, the 10 miles of water between the mainland and Fremont island could be traveled in short order. It was this machine that was struck by the ice in 1942.

Contrary to common belief, the salt



This is an iceberg in the middle of Great Salt Lake. It was formed of ice sheets a few inches thick blown into a pile by heavy winds. Contrary to common belief, ice often forms where clear water tributaries enter the lake, and blown about the lake damages boats and shore installations. The berg in this picture was 30 feet high.

impregnated lake water seemed to have no apparent ill effects on the truck mechanism. Stoddard often left it standing in the water weeks at a time during the slack season when visits to the island were unnecessary.

The lakemobile was used to haul supplies as well as sheep. However, during the extreme low lake level of the early 1940's Stoddard found the sand bar completely exposed during

the late summer and early fall so decided to drive sheep from the island instead of trucking them. The three-mile stretch between the south end of the bar and the mainland was covered with a few inches water, but the sheep crossed it without difficulty.

On one occasion such a venture almost resulted in disaster. Stoddard was driving 300 lambs from the island to market. As they approached the

Charles Stoddard of West Point, Utah, beside his artesian well on Fremont island. He drove a 16-foot pipe into the ground, and gets a good stream of clear, cold water. The well is now submerged due to a rising lake level in 1948.



south end of the bar preparatory to the wade to shore, a sudden wind, so common to the lake, came up and drove water southward, increasing its depth by several inches.

"Now, there were two things that could be done," said Stoddard, "I could either return to Fremont island or spend the night on the sand bar and hope the water would not rise high enough to drown the sheep." He quickly decided on the latter course. From materials on board the lakemobile he hastily built a temporary corral on the bar three miles from shore in order to keep the herd intact during the stormy night. By morning the wind had subsided and the water receded so the flock could be driven to shore without difficulty.

There are real dangers accompanying this type of lake transportation. The possibility of a sudden storm is only one potential danger. While I was on the island with Stoddard in 1944 a sudden wind came up that seemed likely to overturn the sheep camp in which we spent the night. I spent a restless night, fearful that I would be unable to return the following day. But Stoddard slept peacefully through the storm. He knew the wind would be gone by morning and told me so. Next morning we crossed to the mainland in shallow water. Knowing the lake and its storms so well, he could afford to risk 300 sheep on that sand bar during a stormy night feeling quite sure that morning would bring calm weather.

But woe to anyone who misses the marked course! Inexperienced men might be enticed to try a short-cut to land or for some other reason fail to follow the route and be trapped by the treacherous bog holes found in numerous places. Such an incident occurred in May, 1940 when Michal Boam departed from the route with a team of horses.

"It was right out there," said Stoddard pointing into the lake. Soon the horses were bogged down in quicksand in about two feet of water, four miles from shore. The animals became terror stricken and struggled and fought so frantically they completely exhausted themselves and finally succumbed. Said Stoddard, "I went out to them the next day and took the harness off. In a few days a strong wind blew their bodies up on shore."

Ice on the lake poses another hazard to the sheep business on Fremont island. Normally, since the island is completely surrounded by water, sheep can be pastured there without a herder. All that is necessary is to visit the island every two or three weeks to keep the wells and springs cleaned and

properly flowing. During the cold calm winter of 1944 ice several inches thick formed at the mouth of Weber river and extended all the way to Fremont island, making that isolated place accessible to roving coyotes. With snow covering the ice, these animals could cross without realizing they had left the mainland. At least one did reach the herd and began its work of slaughter.

Stoddard sighted the animal from an airplane while on an air inspection trip. He organized a hunting party to comb the island for the killer. After two unsuccessful attempts by hunters, horses and a pack of hounds owned by Larry Allen were taken to the island in the lakemobile to finish the job. However, the culprit still evaded its pursuers and continued to play havoc with the sheep.

By this time many people had become interested in the chase and a party of 23 hunters, including a newsreel cameraman, made their way to Fremont island April 2, 1944. The dogs jumped the coyote near the north end of the island, drove it toward the hunters and the firing began. Some 200 rounds of ammunition later the beast took to the open lake and headed for Promontory point in an effort to escape. The firing continued. The swimming animal was finally wounded. Stoddard took up the chase in a small motor boat and brought the coyote back to the island for execution. This was probably the most spectacular coyote hunt ever staged in this part of the country.

The water supply, both for humans and animals, has always been a serious problem on Fremont island. However, Stoddard effectively solved the problem by driving artesian wells. One of these is probably the shallowest flowing well in Utah, consisting of one 16-foot length of two-inch pipe. It flows a good stream of clear cold water of slightly brackish taste, but satisfactory for culinary use. The well was driven on an alkali flat only a few inches above lake level. That was in 1941 when the lake was near its all-time low level. During the summer of 1948—when the lake was two feet higher than in 1941—the well was submerged in the brine. Stoddard's attempts to pipe the water to higher ground failed, the fresh water forcing its way up around the pipe and discharging itself into the lake. By late summer, however, the lake had receded, making the fresh water available again.

Always interested in improving navigation and shipping on the lake, Stoddard recently obtained a landing barge from the government. Purchased at

Mare island, the boat was shipped by rail to Ogden and trucked to the Salt Lake county boat harbor where it was launched. This surplus war craft might seem a little out of place on peaceful Great Salt Lake but Stoddard has equipped it to serve his needs. It replaces the lakemobile and is used to transport wool, sheep, machinery, or passengers about the lake.

• • •

'PROTECT INDIANS' TRUMAN TELLS NEW COMMISSIONER

Eventual lifting of government supervision over tribal affairs, a change he believes "will require years," is the only major policy which the new Commissioner of Indian affairs has yet discussed following his recent appointment to the important post.

New U. S. Indian commissioner is Dr. John R. Nichols, president of the New Mexico A & M college. He succeeds William A. Brophy, Albuquerque attorney, who resigned last summer because of ill health. Dr. Nichols has been granted a year's leave of absence from the college to take his national position.

Dr. Nichols is already on the job, his nomination by President Truman having been confirmed by the senate. As Indian commissioner he will find hundreds of problems laid in his lap. Immediately after his confirmation by the senate, Dr. Nichols made this statement:

"The only policy I will mention is the instruction given me by Mr. Truman. The president told me, 'protect the Indians.' That is a policy with which I wholeheartedly agree."

While virtually everyone will agree with that general statement of policy, the question of how best to "protect" the Indian is a highly controversial one throughout the Southwest desert country.

• • •

Big Industry Invades The Desert Solitude . . .

Going against the recommendation of the Riverside county Planning commission, the county board of supervisors has given the go-ahead signal to Industrialist Samuel Guiberson for construction of a multi-million-dollar cement plant in the Whitewater area only a few miles from the famed desert resort community of Palm Springs, California. Following the board's action, Guiberson immediately let a \$15,000,000 contract for construction of a huge plant, expected to be in operation within a year. Opposition to the industrial plant came mostly from Palm Springs. The plant is to be located near extensive limestone deposits.

Pictures of the Month

Desert Sparrow-Hawks

First prize in Desert's March photo contest was won by James D. Hicks, Colton, California with the accompanying photo taken near San Bernardino. Taken at f.16 at 1/110 second on a 2¼x 3¼ Graflex with K-2 yellow filter.



Fiesta Bread . . .

Second prize was awarded to C. R. Ege, Chicago, Illinois for his photo taken at Taos Pueblo, New Mexico in September 1947 — about noon. Taken with a Zeiss Super Ikonta B on panatomic-X film, 1/50 second at f.6.



Special Merit

The following pictures entered for the March contest while not awarded prizes were of exceptional merit:

"Taos Pueblo" taken at Taos, New Mexico by Harold J. Chall, San Leandro, California.

"Kitten in a Desert Snow-Bowl" taken in Lucerne Valley, California by Margaret A. Watkins.

"Horse and Desert" taken in Mexico by R. Van Nostrand, San Diego, California.

Black Magic of the Cahuilla

By JOHN HILTON

Among all the Indians of the desert Southwest, the most secure economically are the members of the Mission tribe of Cahuilla living in Coachella valley of California. Paradoxically, although these Indians derive their wealth from and are in constant association with a large population of Anglo-Americans, their ancient tribal customs and religion remain virtually a closed book to the public. Yet they do have a religion—a very potent ritual, you will agree, when you read John Hilton's story of their white and black magic.

THE full moon cast a long distorted rectangle of light through the door of the arrowweed hut, turning the dust on the floor to powdered platinum. In the center of the room were the dying embers of the fire.

On all four sides of the fire, seated on crude benches facing the cardinal points of the compass, were the faithful of the Toro branch of California's Cahuilla tribe. Men, women and children, babes in arms and even a few mangy dogs. Coppery skins near the fire were burnished highlights against

the dark background. All was silent save the occasional whimper of a babe and the soft "ss" of the mother quieting it, or the low growl of a canine under the bench.

We had been seated there since the blaze was bright and folks were talkative. A hush had come so gradually as to be hardly perceptible as the fire had faded from a crackling blaze to a soft glow of embers.

Suddenly an old man, whose wrinkled face reminded me of a mummy, let out a loud grunt! I shuddered and my Indian friends on either side suppressed quiet chuckles. It was no ordinary human grunt. It recalled the time when I was a small boy visiting the zoo with a couple of older friends and one of them poked a sharp stick into the flank of a sleeping lion. It made the hair on the back of my neck stand and left a prickly sensation all over my skin.

Then there was absolute silence save for occasional crackling of a mesquite coal. There came another grunt, even louder if this could be possible, followed by two huh huh sounds in unison from the older men in the room. The interval of silence was shorter this time, then another "whuooh—huh—huh" and another and another, each time halving the interval of silence. The timing was as perfect as a well conducted symphony. I caught myself falling in with the soft grunts after each loud whuooh! Gradually, the grunts settled down to a steady rhythm.

An old man sitting in the middle of the bench farthest from the door arose and kicked the ends of the mesquite faggots into the center of the coals. The fire flared up like turning on a floodlight. People stirred on the bench and the grunting stopped.

It was Casimiri Ludo, old and slender, erect as a sapling and noble in appearance in the light of the blazing ceremonial fire though he was dressed in a simple blue denim shirt and jeans. He made several unsteady circles around the fire as though he was stumbling around in his sleep but his eyes were wide open and they never left the center of the fire. Suddenly he stopped and blew a tremendous blast into the blaze from the east. It was a noisy hissing blast of air that sent sparks and coals scurrying to the very feet of tribesmen across the room. Then more circles and he blew again into the fire, this time from the west. Then the south and finally the north.

Again the old man in the corner

One of the best known among the old fire-eating medicine men of the Cahuilla is Ambrosia—shown here decked in his ceremonial feathers.

Photo by Field Studio of Riverside.



gave out with his grunt and the chorus followed. This was repeated several times and Casimiro started stomping the earth with his right foot. He would raise his foot nearly even with his waist and strike the ground with his sole, making a noise similar to that of an alarmed buck rabbit. It was no ordinary stomp and each time his foot struck the ground he let out his breath with a noisy hiss. The other men grunted in time with his stomping which he kept up for several seconds, finally throwing his hands into the air, with a wild yell.

This he repeated several times. Then from another corner someone started singing a low chant. The words were something like this: "ah mo ne mena te ah ya wa". Casimiro stood still in his tracks and the singer went on barely audible and in a very low pitch "ah mo ne mena te eenata eewa ah mo ne mena te sh ya wa". Casimiro slowly removed his blue shirt and laid it on the bench. He reached in the side pocket of his jeans and pulled out a strip of cloth which he bound around his head. Then he stepped to the brush wall of the ceremonial house and removed a cloth wrapped bundle. From this he took two bunches of owl feathers and tucked them in the band around his head. Then he took two more and tucked them in his belt and walked toward the fire. Once more he blew into the fire from the four cardinal directions and then removed the feathers from his belt and began shooping spirits out of the place with them.

Occasionally he would pass the feathers over the fire and purify them, then chase more spooks out of another corner. Every few times the song was repeated another singer would take up the strain until about 20 men and women were singing. Since some of the music is in quarter notes, the effect was not musical in a modern sense. The women who sang, did so in a strange minor harmony like playing two black keys on the piano.

The effect made me forget that this was the twentieth century and that in everyday life these people were just normal neighbors working in fields, driving trucks and doing all the ordinary things that people do. I had been carried a thousand years into the past with no other props than some rhythm, music and owl feathers.

Suddenly Casimiro started pounding the ground with his foot again and ended with another yell. The music stopped and then changed to another song. The medicine man stepped to the fire and blew into it hard three times in quick succession, then he stopped and picked up a living, burn-

ing coal of fire and held it in his hand and blew sparks off of it.

Pandemonium broke in the ceremonial house. The tribesmen yelled like a pack of coyotes as Casimiro slowly placed the coal of the fire in his mouth and, breathing in through his nose and out of his mouth, he made a circle of the room and blew sparks in the direction of everyone. This fire eating process was repeated three times and ended by the placing of the owl feathers upright in the dust by the fire to be taken up by another medicine man.

The next man, after considerable singing and stomping, struck himself several times on the forehead and knelt by the fire and spit something into his hand and held it in the light of the fire where it squirmed like a small white grub worm. When he did this the Indians screamed louder than during the fire eating. Finally he took this object up and swallowed it again.

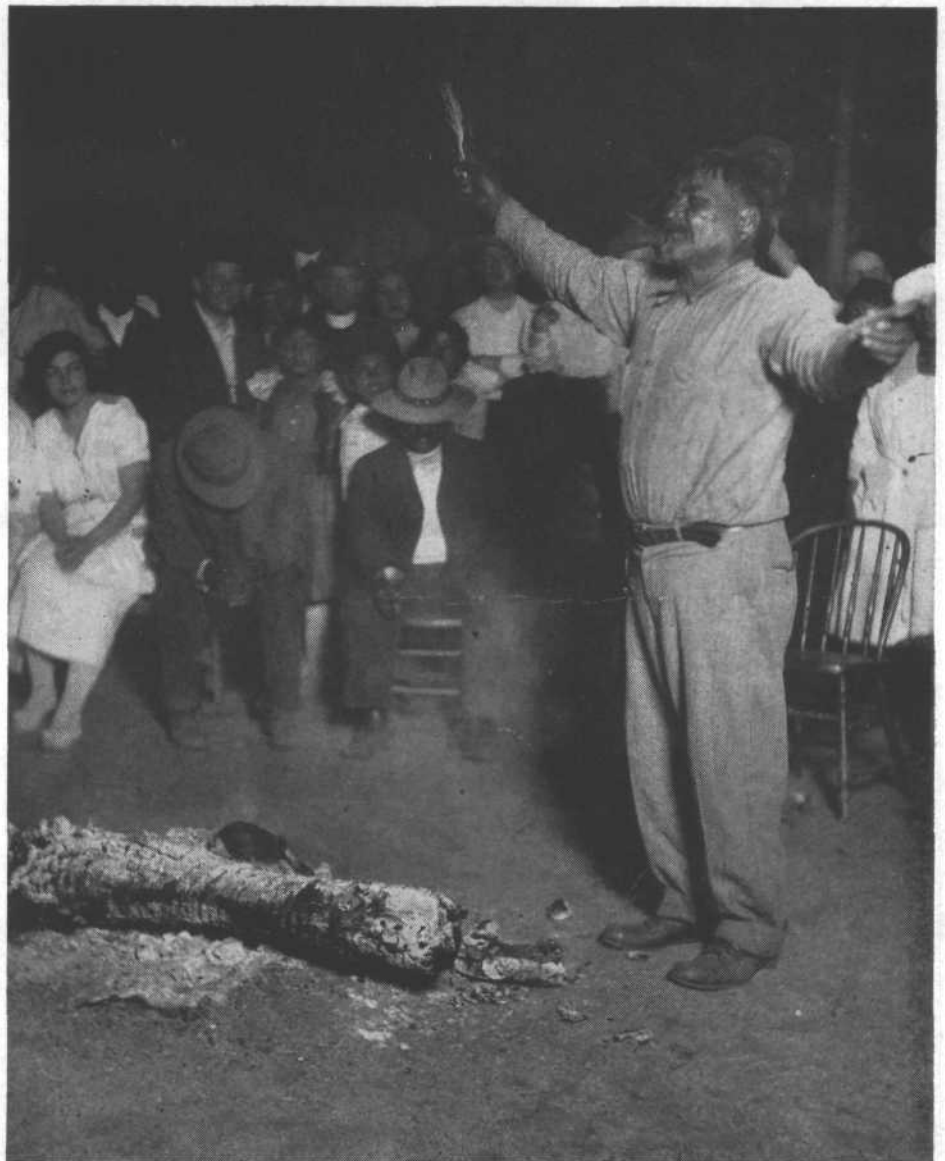
Later I was told that this was the man's soul.

That was my introduction to a Cahuilla fire ceremony. I have seen many since with several variations. Once I took a physician who was not only a nose and throat specialist but a very accomplished amateur magician. He offered to pay a young medicine man ten dollars if he would allow him to examine his mouth and throat before and after the proceedings.

The man never left our sight after the examination. He sat beside us until he got up to dance. Afterward he came and sat down between us until the other dances were over and submitted again to a very careful examination. The doctor found only a slight reddening on one spot on the boy's tongue which he said might feel a little raw the next morning. He was at a loss to explain how it could have been done by straight trickery.

Later, when I knew Casimiro well,

Photo at Soboba Hot Springs. Courtesy Mr. and Mrs. Bob Robertson.



I asked him what really happened when he ate fire and his reply was very simple and straightforward. "It's easy to eat fire," he said, "if you think you can. First you think your hand very warm, then very hot, then hotter than

fire. When hand hotter than fire, fire feels cool—can handle with hand easy. Next, think tongue and mouth very hot same way. Fire taste just like ice cream but be sure don't breathe air in through mouth."

I tried his formula and was able to handle the coals but when I put one in my mouth it burned me. I told Casimiro about this and he laughed and said, "Nobody sang. You can't eat fire without sing." After that I just watched.

Hard Rock Shorty of Death Valley



"Any snakes around here?" asked the newcomer.

Obviously he was a tenderfoot, and his question was directed at Hard Rock Shorty and a couple of other old-timers seated on the battered porch bench in front of Inferno store.

"Ain't seen one fer years," answered Hard Rock, and then he turned back to his three-week-old newspaper as if the conversation was ended.

But the tourist was curious. "What kind of snakes were they?" "Were there any sidewinders?" "What became of them," etc., etc.

Shorty paid no attention at first, but when the dude persisted he finally laid the paper down in disgust.

"Sure, I'll tell yuh what happened to 'em," he said.

"Death valley usta be over-run with bull snakes. Millions of 'em, and they was big fightin' reptiles. They'd even come in the house and take grub out offen the dinin' table. They wuz always hungry.

"That's the way it wuz back in '15 when Pisgah Bill decided to start a chicken ranch over on Eight Ball crick. Bill brought in one o' them incubators and a lot o' eggs, and soon had several hundred little chicks in the pen he built for 'em. Then one night them snakes found a hole an' got into the pen—and next mornin' Bill wuz outta the chicken business.

"But Pisgah figgered he could keep the snakes out, so he ordered a couple a hundred more eggs. But he fergot to fix that hole, and next mornin' the eggs wuz gone.

"That made Bill plenty mad.

"I'll fix them consarned reptiles," he exclaimed. So, his next order wuz fer a big batch o' them china nest eggs.

"He put 'em in the pen, and then fixed that hole so it was barely big enough fer a snake to squeeze through. An' next mornin' they wuz forty-three bull snakes in that pen, each one with a big bulge in the middle of 'im. Them snakes 'd swallowed the eggs, and couldn't digest 'em—an' that bulge was too big to go through the hole.

"Bill caught so many snakes that way he lost count—and skinned 'em and sold their hides fer makin' fancy pocketbooks and belts. 'Fore the summer wuz over he'd made more money sellin' snake skins than he coulda made out o' raisin' chickens.

"An he'd be doin' it yet, only he ran outta snakes."



At the beginning of the war, the government was having trouble getting the Indian boys to register. They didn't mind fighting so much but they have a decided aversion to signing their names to documents, especially when someone tries to make them.

A medicine man named Basket went through the same preliminaries I have described, then knelt by the fire naked to the waist and poured handfuls of hot glowing coals all over his head and back. After this he brushed the dust away from the hard ground and pounded on it with his hands until it sounded like a giant drum. People a mile away mentioned the drumming the next morning accomplished only by pounding the bare earth with the palms of his hands. After the pounding ceremony, Basket put his ear to the ground and held it there for about 20 minutes. Then he arose slowly to his feet and, holding his right arm outstretched before him, delivered quite an oration in Cahuilla.

My friends translated later. It was, in brief, that he had been in touch with the earth god—the god of the land of their fathers and of all growing things. This god had told him that their land was really in danger and whether they hated Japan or not they must go out and protect their land and their homes and that they should do whatever was asked of them by their white brothers. The war records show that these Cahuillas did not fail nor falter in battle. There was no more trouble about the draft registration.

There are two regular fire dances. One on the three nights of the full spring moon, and another on the three nights of the fall moon. In the intervals between there may be any number of special occasions for fire eating, mostly in healing tribesmen or when there is something of importance to be announced to the people. None of these dances are ever open to the general public. I have seen as many as a dozen outsiders at a dance but they had been invited by Indian friends.

This is considered by the Cahuillas as white magic or good medicine but sometimes a medicine man goes bad and uses the powers and secrets in his possession to obtain money or to work evil. These are referred to as devil dancers, but never to their faces as they are feared by all.

One young Indian donned Hollywood feathers and put on fire dances for the public. He got \$50 a dance—but not enough bookings to make it a profitable vocation—and in the end he was loser, for those \$50 fees spoiled him for ordinary labor. Then his tribesmen found out what he was doing. At the next fire dance, everything went wrong. The timing was broken, the music was wrong, nothing worked as it should and when the final moment came for him to eat the fire, he was the center of a ring of staring, hating eyes—accused of prostituting his religion. He put the fire in his mouth and it burned him.

He became very angry with his people and went into seclusion. When he came out, he was shunned by all, and is to this day. His wife and family have left him. He is bad medicine or black magic. Such men when they finally die become lesser devils or evil spirits according to Cahuilla belief.

One such in ancient times was called Tah Kwish. He became a powerful force of evil and abducted many pretty maidens whom he kept frozen in an ice cave on the windswept peak of San Jacinto mountain. A canyon called Tahquitz bears his misspelled name near Palm Springs. Today, when there is a rumbling noise on the mountain, Indians refer to it as the growling of Tah Kwish. This and other legends have kept his evil name alive for centuries.

When the country was sparsely settled by white folks, there were many more bad medicine men than there are today. There was rivalry between some of them. In their feuds they sometimes resorted to death sings. Each medicine man would bring his own chorus of singers and meet at some neutral spot. Each group in turn would sing hate songs at the other. These hate songs (or the belief in them) had killing power and according to legend were the cause of many deaths. There are records in the Riverside county coroner's files giving the cause of death as witchcraft!

While there is actual proof of death by black magic among my Cahuilla neighbors, there is recent proof, and I witnessed it, of cure by good medicine or white magic.

I stated that the Cahuillas made good soldiers. Most of those who saw action are either in graves overseas or bear the purple heart. A few came home minus arms or legs. Two Cahuilla lads developed battle shock after the shooting was over. They had been in the first assault waves on some of the bloodiest beachheads in the South Pacific and came through with honors. Safe at home, they were tortured by



Typical meeting or ceremonial hut of the Cahuilla. Photo by U. S. Indian service.

nightmares. Government doctors examined them and prescribed rest and quiet and said time might overcome their difficulties, but they got no better.

Then, the medicine man took over. Late one afternoon I followed directions given me to a ceremonial house hidden in the brush. We arrived after sundown and found quite a crowd eating a ceremonial feast. When this was over the sing started in much the same manner as ordinary fire eating ceremonies—the same grunting and stomping; the same cleansing by owl feathers and the singing of many songs, some of which were new to me.

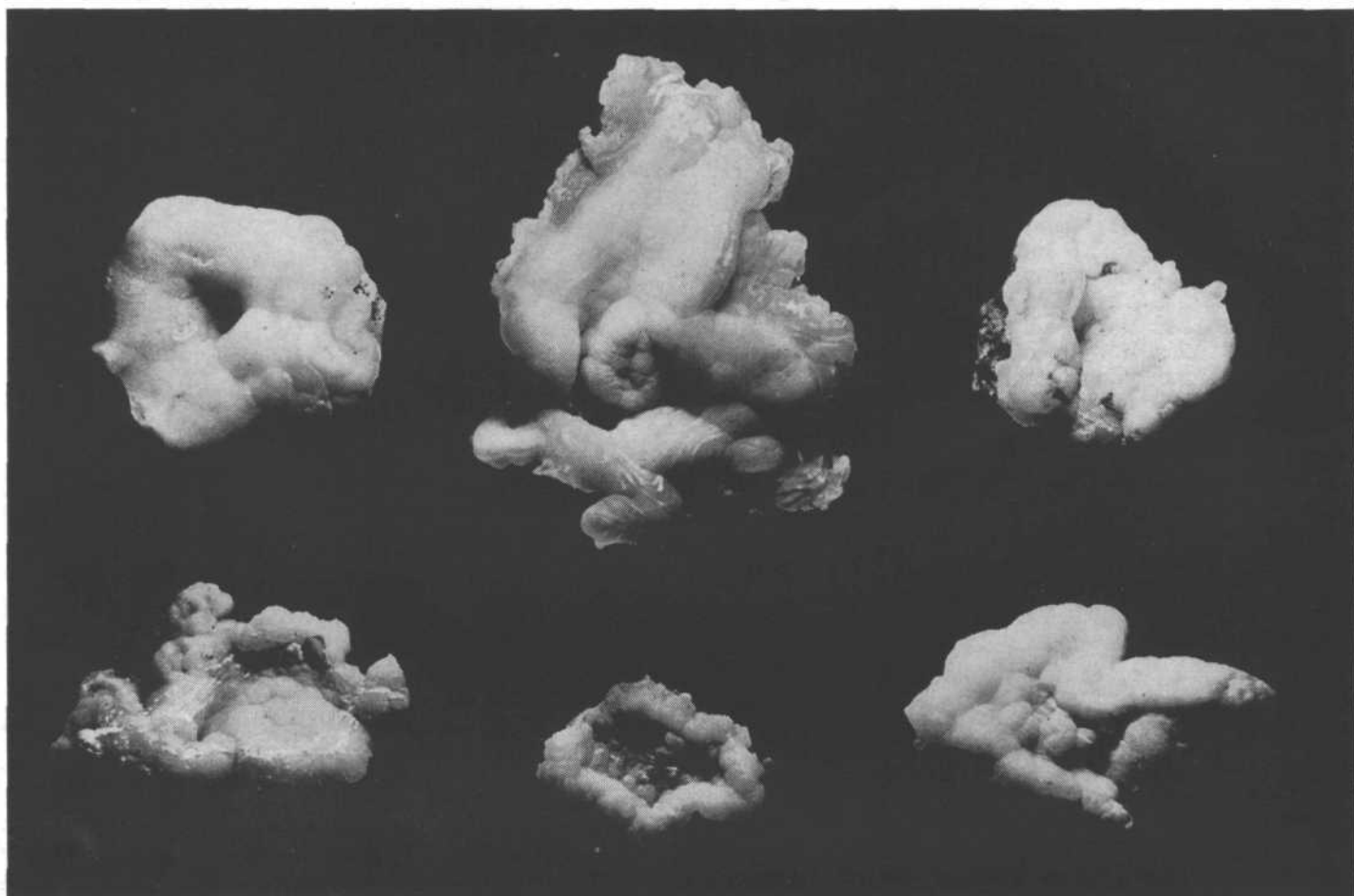
When the affair neared its climax, the two young patients were led forward and told to kneel in front of the fire. Basket took the owl feathers and held them over the fire, then brushed each patient very carefully, especially the head, face and shoulders. At intervals he shook the bunches of feathers over the fire as if removing something by the gesture. Then he took red embers in his mouth and blew sparks on each one until he had burned out and blackened three coals.

His next step was to kneel in front of one of the lads and place his lips over the lips of the patient and blow very hard. I could see the boy's cheeks puff out and his eyes bulge from the force of the blast. Then he blew in his nostrils and finally very hard in each ear. This must have been painful, but the lad did not flinch. Finally, grasping him by each ear, he drew his fore-

head to him and put his lips on a spot just above and directly between the eyes. Finally, he pulled his mouth away with a resounding smack like the removal of a cork from a bottle and spit something into his hand. The witnesses yelled and wailed in almost hysterical manner while he held a small white squirming object to the light of the fire a moment and then dropped it into the flame. He turned then to his other patient and repeated the performance. Both boys remained kneeling while he brushed them again with the owl feathers and finally made a short speech. A friend sitting beside me translated it.

He said that these boys, while on one of these remote beachheads, became the victims of newly released spirits from some enemy they had killed. These spirits had clamped onto their souls and were determined to live with them and torture them the rest of their lives. This removal and burning had sent the devil spirits to the world beyond where they could no longer torment the lads.

These boys, whose names I have been asked to withhold, slept well that night and have not been bothered since. Call it what you may, psychology, hypnotism, suggestion, black magic or white, whatever it was—it worked! Army and navy hospitals are full of patients today, suffering from the same mental ailments which neither medicine nor psychology have been able to cure.



Chalcedony roses of the Saucedo mountains. Many of these stones fluoresce an intense yellow-green. This picture was taken entirely by the light given off by the roses under the ultra-violet lamp.

Magic Rocks of the Saucedas

For this month's field trip Harold Weight went down into the Papago country of southern Arizona, and with one of Ajo's rock collectors as guide, found a place where chalcedony fairly "oozes out" of the mountain.

By HAROLD O. WEIGHT

WHEN Ezra Voyce and I left the Ajo-Gila Bend highway and headed northeast toward the Saucedo mountains, we were hunting for a hill "oozing chalcedony." We had only a rough pencil sketch of the trail to guide us, and neither of us had been in that particular area before. L. T. Beggs, editor of the *Ajo Copper News*, had made the sketch for me when I visited him early in November.

Editor Beggs is relatively new to the southern Arizona desert, but he has become a confirmed desert rat and spends much of his free time knocking an automobile to pieces on the abandoned and forgotten back-trails which lace the Ajo country. He was running

the last copies of the current issue of his weekly paper when I entered the printshop and I had to shout to be heard above the roar. He shut down the rumbling press and considered my request for rock information seriously.

He was afraid, he said, that he couldn't help me. First, he wasn't a rockhound. Second, he wouldn't know what would make a good field trip. Before I could become discouraged by these disclamations, he drove me out to see a pile of rocks and mineral specimens which had been brought in from the surrounding country. And when I showed my interest in some nicely marked chunks of agate and chalcedony, he grinned.

"Well," he said. "If it's chalcedony you want, I know a hill where it's just oozing out." We whirled back to the *Copper News* office and he sketched the road, as he remembered it, on a piece of scratch paper. Then he phoned Ezra Voyce and told him I was coming over to see him.

Ezra, I discovered, is the most enthusiastic and prolific polisher of gem stones in Ajo. Like most citizens of the copper town, he is employed by the Phelps-Dodge New Cornelia Copper company. He and his wife manage the ultra-modern dormitory for bachelor employees which the copper company has just opened. In the manager's apartment, Ezra showed me a



Ezra Voyce shows the mode of occurrence of geodes in the Saucedas, where they weather from perlite masses.

table covered with cards of cabochons which he had cut. Most of the stones are made from local material.

Much of the most beautiful gem material from the Ajo area comes from the great open pit of the New Cornelia Copper company. Especially striking were the stones he had cut from shattuckite, a rather uncommon copper silicate of varying shades of blue. The stone polishes beautifully but, since the hardness is about 5.5, it does not keep its sheen in jewelry receiving hard wear.

Other ores from the mine, which he has polished as stones or specimens, included chrysocolla, malachite and azurite. But only the copper company's employees are present when blasting operations occasionally break into these highly colored veins and scatter the bright copper minerals. The rockhound who wants to collect his own material must look to other fields.

Ezra has been with New Cornelia

10 years. He worked in the giant concentrating mill before managing the dormitory. Before coming to Ajo, he worked 20 years for the Utah Construction company in Nevada.

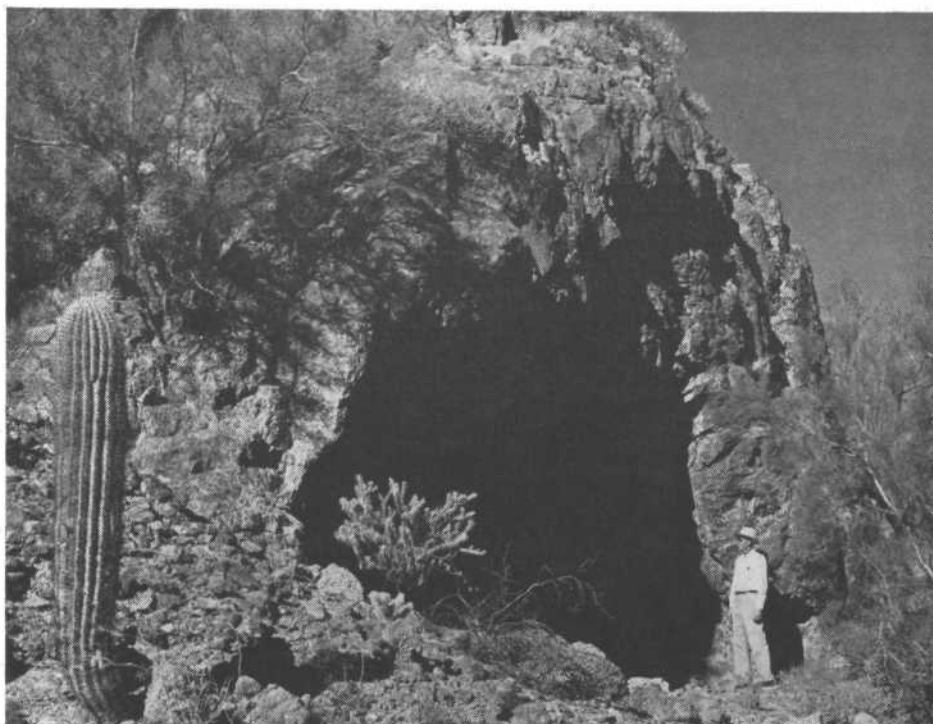
When he came to Ajo, Ezra's first hobby was the making of bookends and lamps out of local native materials. The bases of the bookends are cut from heavy fine textured ironwood, and the polish this beautiful wood takes rivals that of many stones. On the ironwood he fastened a plate of native copper into which he had dropped copper nuggets while the metal still was semi-molten. Rising from the plate is a branched saguaro, also cast from copper. One of the lamps has a really remarkable base, the twisted root of an ironwood which he and his brother-in-law have polished by hand. The shade of this lamp has been made of slats fashioned from the remains of a dead saguaro.

As Ezra continued to expand the

machine shop in his garage, he became interested in the rocks which friends brought in. The step of adding sawing and polishing equipment followed naturally. Today he has about all the machinery in that line which is available. Much of it he designed and built himself.

He was eager to go with me on the hunt for the chalcedony hill. Before we left he showed me an interesting small geode which he had made into an ash tray by grinding and polishing the outside. There were more of them in the mountains to which we were going, he said. I realized that these must be the "volcanic bubbles" which Beggs had mentioned.

We headed north from Ajo on Highway 85. About 13 miles from Ajo, the pavement cuts through a strikingly eroded valley in the Crater range. This valley, although the result of erosion by water and weather, appears so much like the center of a volcanic cone that



early travelers called it the Crater and the name eventually was applied to the entire range.

We left the highway at 18.4 miles from Ajo, taking an old road, right, toward the Saucedas. It was broad and bladed, probably the work of the army which had several landing fields between Ajo and Gila Bend, but runoff already had cut it badly. The road followed a winding course until we crossed the railroad—the Tucson, Cornelia and Gila Bend—built to ship the output of the Ajo mine. After crossing the tracks, we left the fading remnants of the graded road and headed eastward along the well-traveled ruts of an unimproved desert road.

Modern roads in southern Arizona, such as the highway we had just left, are straight as a rule, piercing the heart of the valleys and disdaining the colorful hills on either side. But the old roads wander endlessly, in happy companionship with rocks and mountains, desert trees and shrubs and washes. They often are hard going and even irritating in the manner in which sometimes they seem actively to avoid reaching the destination you have chosen. One cannot really say he knows any portion of the desert until he has followed a desert road.

The wandering of these roads is not aimless. Kirk Bryan in his invaluable *The Papago Country, Arizona*, published by the U. S. Geological survey and long out of print, explains their origins. Most of the old roads follow Indian trails. When the Indians traveled on foot through the desert, their paramount need was water. So the old road, following the old trail, touches every point where temporary or permanent water supplies existed. The Indians generally preferred to go around an obstacle, a tendency followed by prospectors and present day rock collectors.

The present Papago reservation lies south and east of the hills for which we were heading. But this is all old Papago country. And their origin myth, as recounted by Ruth Underhill in *Papago Indian Religion*, tells of a time when the mountains were shapeless



Above—In shallow caves, such as these, the Old Ones made their summer camps while harvesting saguaro fruit and hunting the wild sheep.

Below—One of the little-known tanks in the Saucedas mountains near the gem field. Chippings and pottery sherds in near-by caves show this area to have been the camping site of early Indians who probably hunted the wild sheep once abundant in these mountains.

and the ranges and rivers all ran west. Then Buzzard was sent out to gash the mountains and turn them and the rivers in various directions.

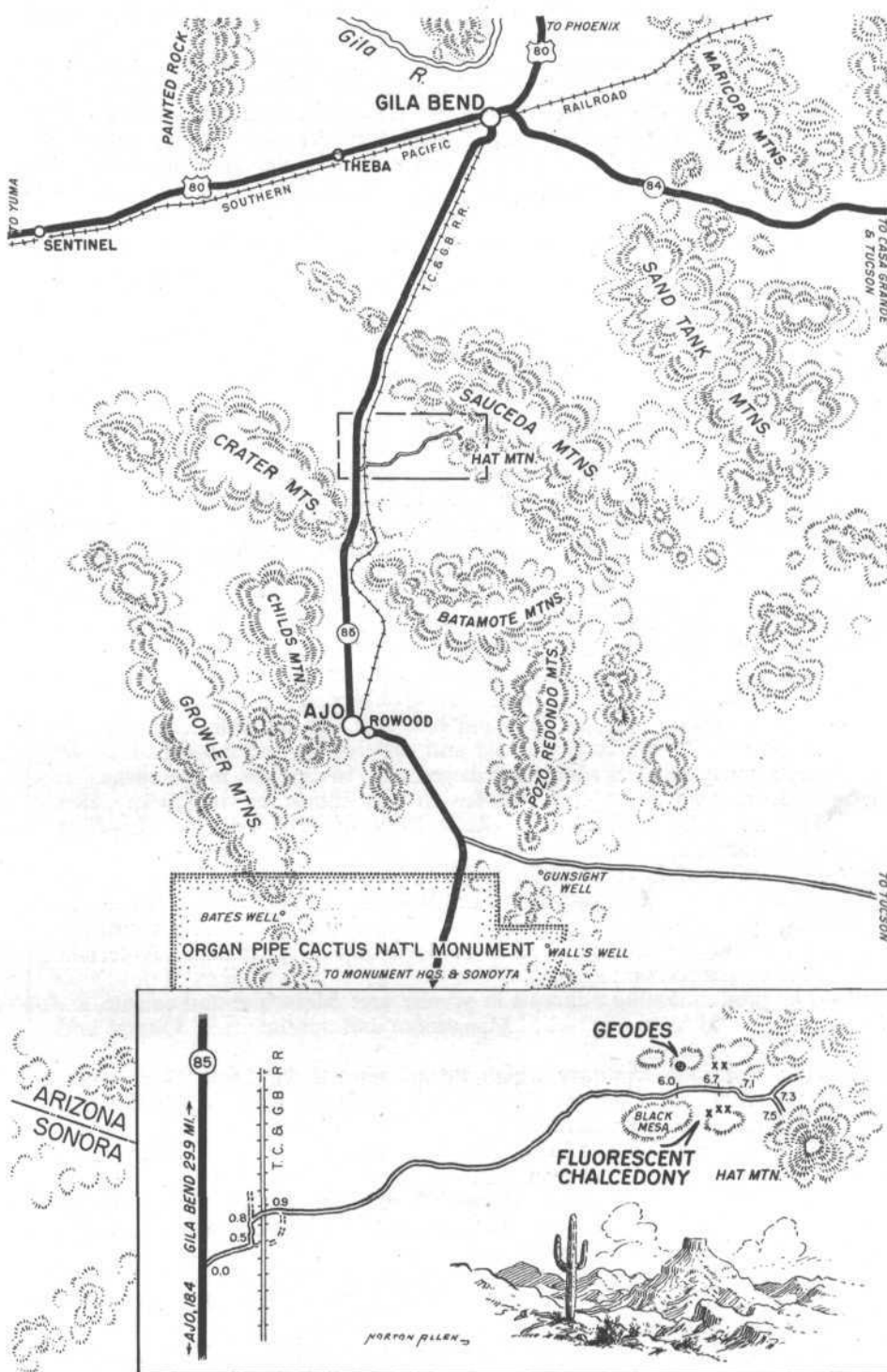
Buzzard certainly must have been a busy bird around the Saucedas mountains. As we neared them, they appeared a tangled mass of buttes, canyons and ridges. Geologists have a different explanation. They agree that some very exciting activity took place in the area during the Tertiary period when volcanic action formed a series of flows and tuffs which almost completely buried the earlier rocks. Batamonte mountain to the south, an ancient dissected volcano, may have accounted for some of the ocean of liquid rock which at one time rolled across this land, forming great layers of rhyolite and basalt. The ridges and plateaus of the Saucedas are made up of these volcanic flows.

It is a wild aloof country, with mountains rising abruptly from the plains, thorned and spined Sonoran vegetation thick along the washes, and giant saguaros climbing the slopes. There is little visual evidence of the activities of present-day inhabitants of the area, and still fewer reminders of the native tribesmen who roamed it in the past.

But we know that once there was a large semi-nomad population in this land. Potsherds, arrow chippings and campsites can be found at every water-hole. The great missionary-traveler, Father Eusebio Kino, reported them during one of his explorations of Pimeria Alta. In September and October, 1700, he journeyed from Pozo Verde to the present site of Gila Bend. October 1, 1700, he arrived at a village he called San Geronimo. In his dairy he recounted that 280 people waited for him in the village and 150 arrived that night from another rancheria to see him. "Because it was night, neither the women nor the children had come," he reported. But in the surrounding area there were more than 1000 persons "who had never seen a father or any Spaniard."

Kino traveled on six leagues to a very good watering place, "and after 12 more at another among inaccessible rocks, which the pack animals could not reach to drink, although the guides brought us enough water to drink for ourselves." This tank, Dr. Herbert Bolton believes, was on the eastern side of the Saucedas.

Kino's visit, although he appointed a "new governor, a fiscal mayor and other justices," apparently did not greatly affect the lives or the customs of the Papagos. Fortunately for them they had little in mineral or agricul-



tural resources that the Spaniards wanted. When the American tide of emigration swept westward, it followed the valley of the Gila river and most of the travelers were more interested in getting through than in exploring.

The Saucedas and the surrounding territory became part of the United States with the Gadsden purchase, negotiations for which were completed December 30, 1853. Even before the completion of the boundary survey in 1855 and the official turning of the land over to the United States, pros-

pectors were active in the area and had discovered the copper outcroppings at Ajo. A forerunner of the present giant operations, a company was organized in 1854 and ore was hauled 300 miles across the desert by bull team and shipped in sailing vessels to Swansea, Wales. There it sold for \$360 a ton, but this early attempt ended with the working out of the richest veins.

As we approached the Saucedas—a Spanish word meaning "little willows"—we were heading for a prominent,

flat-topped mountain which is a landmark visible from Gila Bend to Ajo. On maps and in the publications of the U. S. geological survey, it is called Hat mountain. But Beggs and many Ajo residents call it Table Top. Our road wound through the bushes. Here and there old trails branched or

crossed, but we held to the main-traveled tracks.

Editor Beggs had never checked the mileage or directions closely, but he is an observant man and, following the pencilled sketch, we had little difficulty finding the area described. The road entered the broad mouth of a

canyon. Reddish, isolated hills cropped to the north, and we passed close to a black basalt mesa on the south. The sharp slopes of Table Top, striking in its light yellowish bands, rose almost ahead.

Although we had not reached the mileage Beggs had estimated, the rugged red hills to the left demanded investigation. We parked the car at six miles from the highway, and hiked almost north to the nearest butte. There was some chalcedony weathering out, but it showed no color and few pieces of pretty design. Following along the ridges eastward, we came upon an outcropping of geodes on the slopes of the next hill. Most of them were small, and they were weathering from masses of greyish perlite.

There are hundreds of geodes in this immediate area and apparently other deposits of a similar type in the surrounding hills. Most of the geodes are thin-shelled. When the interiors are clean, they are excellent examples of crystal geodes, most of the quartz crystals being quite small. Unfortunately, many of the thin shells have developed small breaks, and minerals and dirt have made their way in, staining and encrusting the crystals.

After collecting samples of the geodes, we drove to 7.1 miles, where the road swings sharply right across the wash. A jagged red hill to the south, its ridges spotted with saguaros, seemed to fit Beggs's description. On the northern approaches to the hill we found broken pieces of chalcedony and some finely shaped roses. As we prospected the rock-strewn slopes, these stones became more plentiful. And when we reached the cliff faces we found them, as the Ajo editor said, "oozing" from the rocks—in some places as seams and in others individual roses.

Ezra, looking over one of the beautiful flower-shapes, said, "I'll bet they'll fluoresce." Others from washes farther south, he explained, showed good fluorescence under an ultra-violet lamp. Knowing from past experience that while chalcedony from one area fluoresces that from nearby may not, I was doubtful. But when darkness came, I tried some of the roses with my portable lamp and they lighted up with an intense yellow-green more brilliant than any other chalcedony I have seen.

Chalcedony roses are fairly common, though always attractive to me. But good fluorescent ones are not common, and a few of these intensely brilliant ones will be prize specimens in anyone's collection. The roses are not found in quantity anywhere, but they are scattered over a large area

Desert Quiz

Desert Magazine's Quiz is prepared as an antidote for one-track minds. You have to know a little about many things to score high in this test. Or, if you do not already know about the geography, the mineralogy, the history, the botany and the lore of the desert country, the Quiz will answer many questions for you. A score of 12 to 15 is good, 16 to 18 superior, and higher than that very exceptional. Answers are on page 40.

- 1—Jerky, an important food item for the desert pioneer, is made by drying brine-soaked meat: Over an open fire..... In the sun..... In an oven..... In a smoke house.....
- 2—Stove Pipe Wells is a famous watering place in: Southern Nevada..... Painted Desert..... Escalante Desert..... Death Valley.....
- 3—To see the annual dance of the "Smoki Indians" you would go to: Prescott, Arizona..... Gallup, New Mexico..... Havasupai canyon..... White Mountain, Apache reservation.....
- 4—The major farm crop raised by prehistoric Indian tribes in the Southwest was: Beans..... Corn..... Tobacco..... Cotton.....
- 5—Desert tortoise eggs are laid and hatched: In the sun..... Underneath sand where they are laid and covered by the mother..... In nests constructed of sticks and leaves..... In crevices in the rocks.....
- 6—A former governor of New Mexico was author of the book: Ben Hur..... Quo Vadis..... Last Days of Pompeii..... Looking Backward.....
- 7—The color of Evening Primrose found at this season of the year on the dunes and mesas is: Pink..... White..... Yellow..... Blue.....
- 8—Among the Navajo a *Chindee* is: A medicine man..... A tool for making sand paintings..... A devil or evil spirit..... A certain type of headdress.....
- 9—The predominating minerals in granite are: Malachite and azurite..... Calcite and lepidolite..... Manganese and apatite..... Quartz and feldspar.....
- 10—The Colorado tributary which Powell named the Dirty Devil river, now known as Fremont river, is in: Arizona..... Colorado..... Utah..... Nevada.....
- 11—San Xavier mission is located near: Santa Fe..... El Paso..... Casa Grande..... Tucson.....
- 12—The U.S. army officer in charge of the first camel caravan across western United States was: Lieut. Ives..... Lieut. Beale..... Capt. Cook..... Lieut. Emory.....
- 13—To reach Roosevelt dam you would take the: Coronado Trail highway..... Sunkist Trail..... Apache Trail..... Broadway of America.....
- 14—Frijoles canyon cliff dwellings are located in: Bandelier national monument..... White Sands national monument..... Hopi reservation..... Mesa Verde national park.....
- 15—The Epitaph is the name of a newspaper published at: Jerome, Arizona..... Goldfield, Nevada..... Searchlight, Nevada..... Tombstone, Arizona.....
- 16—Kolb brothers gained fame for their: Discovery of Rainbow natural bridge..... First photographic expedition through the canyon of the Colorado..... Early day outlaw exploits..... Exploration of Death Valley.....
- 17—The historic Piper Opera House was located at: Calico, California..... Salt Lake City..... Santa Fe..... Virginia City, Nevada.....
- 18—Correct spelling of the name of the largest city in New Mexico is: Albuquerque..... Albuquerque..... Albuquerque..... Albuquerque.....
- 19—The main business of the Phelps Dodge company is: Stock raising..... Mining..... Lumbering..... Transportation.....
- 20—The West's famous Brewery Gulch was located in the mining town of: Tonopah..... Jerome..... Bisbee..... Tombstone.....

and wherever checked, from a number of spots in surrounding hills, showed green under the ultra-violet light. The centers of geodes we had found also fluoresced green, but the color was much paler.

There are many things to see in that wild country, and late afternoon found us bouncing along an almost vanished trail, cut to pieces by deep washes and passable only to four-wheel drive. We were searching for a natural tank which I had been told was located in an arroyo north of Table Top. Driving as far as possible, we hiked on to the edge of the wash and found the tank or *tinaja*—a pool at the base of a deep fall. There was still a good supply of water in the pool, and evidence that animals had been using it.

Beyond the pool we came into a sheltered little valley with a group of big saguaros in its center, and above them, on the northwest side of the valley, a shallow cave. The combination of cave, saguaros and water almost guaranteed that this spot had been used by the Papagos or their ancestors. A climb to the cave disclosed smoke marks, pottery sherds and arrow chippings.

How long ago the last Indian left this camp there is no way of knowing, since the Papagos continued their nomadic life almost to the present generation. Long ago this must have been a very pleasant camp for hunting and for harvesting the fruit of the saguaro. The Papagos were great travelers, and their annual cycle is an interesting one. With July thunderstorms they moved into brush villages on the plains and

planted corn, beans and squash in the clayish soil, irrigated by the rains and with water caught in primitive natural and artificial reservoirs called *charcos*. When the crops were harvested, they went to the mountains to spend the winter near permanent springs, in rock shelters.

Then in June, when the saguaro fruit ripened and the wild sheep were forced through the drying up of water supplies to come to the *tinajas*, the Papagos camped at waterholes such as this one in the Saucedas. The Indians who lived here probably belonged to the Western Papagos, nicknamed "huhura" or "huhula" said to mean "orphans." They were called this by the other tribesmen because they lived in the desert, without good water, and could not build permanent villages. Other branches of the tribe, seeing them live in the strange lands, called them sorcerers.

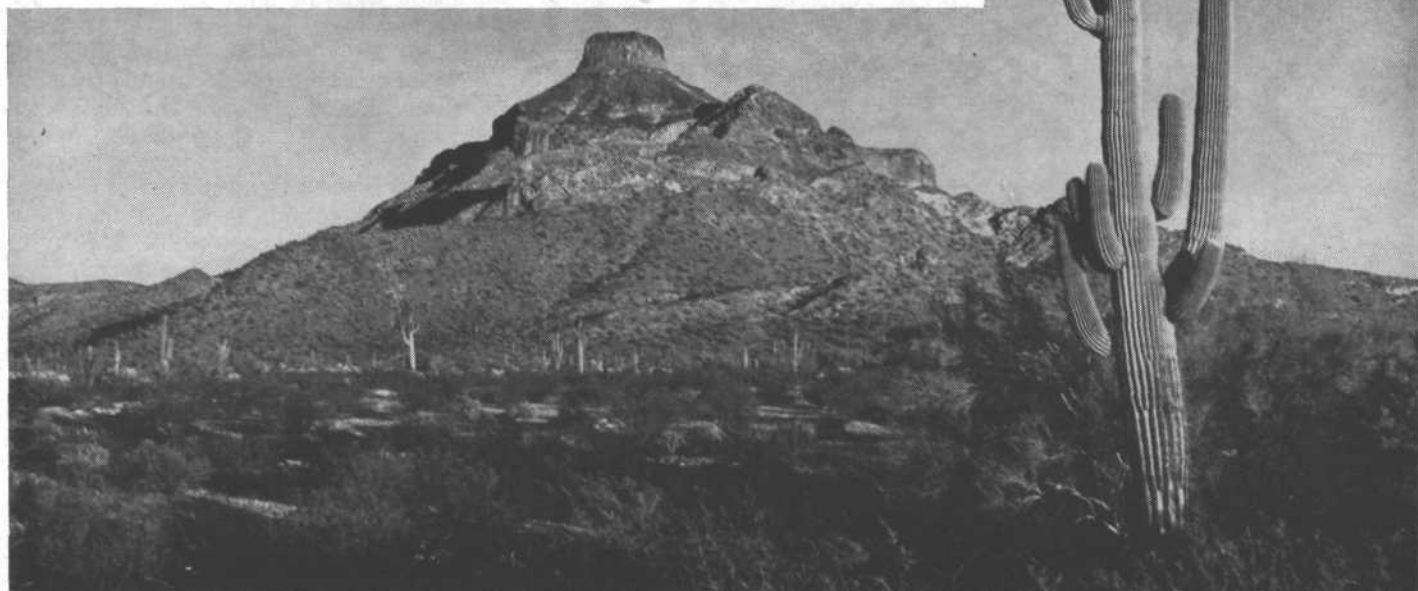
What sorcerers they really could have been if they had been able to make the white rocks under their feet glow green, as we can do with those roses today! To me, this phenomenon called fluorescence is little short of witchery—as strange as anything these ancient ones practiced. Scientists explain it, but when all is said it amounts practically to this: One color of light falls upon a rock and another color is returned.

Probably these Indians noticed the flower-like rocks in their hunting country, but unless they used them for charms or children's playthings I imagine the roses were of little interest. A good rock to an Indian was one that he could convert into arrowheads, grinding stones or face paint.

As the sun sloped toward the horizon, great shadows blacked the craggy mountains, poured into pocket-like valleys. I was reluctant to leave this lonely beautiful spot. The Papagos have withdrawn to their reservation across the mountains, the wild sheep have fled to isolated spots. But the saguaros and the cave and the rocks and the waterhole remain. And it seemed—perhaps—that if I would wait just a little longer in the gathering dusk, campfires would spring to life, the smell of cooking drift down the evening breeze. Indian women would fill their jars at the waterhole, and the evening tasks would be under way.

But the night was coming and the trail we had followed to the valley was not one to be trifled with after dark. We climbed back to the car. The motor roared and shattered the past. It was night when we reached the rutted road. Looking back, the mountains were black and solid, as if they had closed ranks and had shut us out. For we had turned our backs on them and were heading for the highway below. And as the highway cuts the valleys and ignores the hills, these ancient mountains ignore the tiny thread of man-made paving below them. Somehow I feel that these same mountains will look down impassively after the thread of paving is gone.

Local inhabitants call this peak, landmark to the gem field, Table Top, but it seems to be the same one mapped and in U. S. geological surveys as Hat mountain.





Ted Hutchison holds up a smoke tree seedling of a few weeks to contrast it with a two and a half year old tree of the same species. When kept properly watered, *Parosela spinosa* is a fast-growing tree.

He Brings the Desert to Your Garden...

By GEORGE M. ROY

DURING the war Ted Hutchison served at a Signal Corps station on the Mojave desert of California. One of his duties was the management of a small post nursery to raise shrubs for station landscaping.

This was familiar work to Ted. For more than 20 years he had been interested in cactus. At one time he was an active member of the Cactus and Succulent Society of America, and served a term as secretary of the organization.

On the desert, Ted found relief from

sinus and arthritic conditions which had plagued him in more humid climates. It was only natural then that when he received his army discharge he should seek a civilian means of livelihood in the land of little rainfall.

He spent several days with John Hilton at Thermal, California, whose knowledge of the desert is well known to readers of *Desert Magazine*. While at Hilton's he met Don Admiral, desert scientist. Admiral owned some land at Rancho Mirage, a few miles east of

For every plant and shrub that grows on the desert there is in the background a revealing story . . . a story of the ingenuity with which Nature has made it possible for living things to survive and multiply in the face of tremendous obstacles. As a desert nurseryman, Ted Hutchison has made it his business to delve into the secrets of plant life—and here are some of his interesting discoveries.

Palm Springs on State Highway 111, which he offered Ted for use as a nursery. Hilton also encouraged the venture and gave Ted a few plants to help him get started. Thus he was launched in the pleasant work of giving to desert lovers the varieties of plants they yearned for.

Hutchison had observed that hundreds of winter visitors to the Coachella valley expressed interest in the desert holly, a member of the salt bush family. A fine, thriving specimen of *Atriplex hymenelytra*, with its thick, silvery, pink-tinted leaves, it makes a desirable and rather unique Christmas decoration. It is found native on the hottest deserts in soil usually impregnated with alkali. It is widely distributed but nowhere abundant; and it is next to impossible successfully to transplant it. Ted decided to specialize in this plant.

He learned through experimentation that for pot culture, desert holly does best in a rich, well drained soil composed of two parts loam, one part sand and one part peat moss. To a six-inch pot he allows about half a teaspoonful of balanced fertilizer. For soil culture, *hymenelytra* likes a sunny location with good soil drainage. It will be damaged by heavy frost. It requires frequent watering until strong growth develops, then an occasional soaking. After the plants are well established, water can be withheld from September until after Christmas and the holly should be excellent for cutting during the holidays. Once it becomes established in the ground it will not respond to transplanting. Ted feels that as a potted plant in a window collection, holly probably will always remain a florist's item.

He says that rabbits and stock relish desert holly because of the salt in its leaves. The Death Valley Indians used holly in their meat stews both as a vegetable and for the salt. "Now that I am making the plant available commercially," Ted says, "it will some day find a treasured place not only in our gardens but also in our pots and salads!"

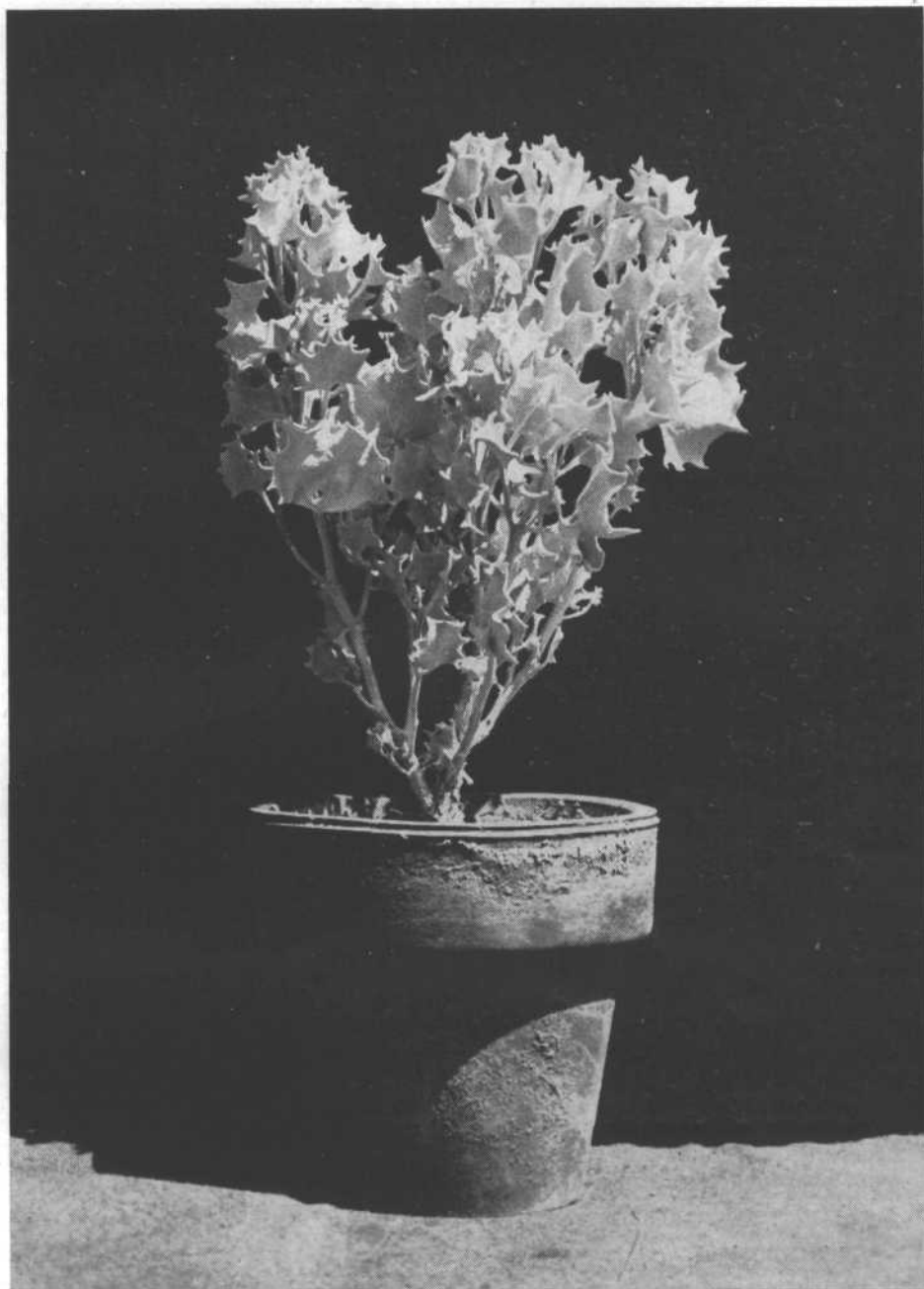
Another much-prized desert plant which is finding increasing popularity among southwestern gardeners is the smoke tree. This unusual and striking member of the pea family—*Parosela spinosa*—is a spiny, almost leafless, gray-green shrub or tree and when in full flower in June is one of the most handsome of desert plants. It is confined to the bottoms of loose sandy washes where it becomes an easy victim of the flash floods upon which it depends for moisture. It is short-lived but a mature tree in full bloom with its deep blue flowers is a colorful sight. Close observation of smoke tree and other desert dwellers has prompted Ted to evolve a theory with regard to the longevity of desert plants.

"It is my belief," he says, "that those plants which are seldom found in the seedling stage—such as the ocotillo—are long-lived and probably very slow growing while those around which abundant seedlings grow are very short-lived and inclined to rapid growth."

The smoke tree would seem to bear out this theory, for after a summer deluge myriads of seedlings can be observed. Few of them survive, but those which remain alive grow quite rapidly, attaining, with adequate water, a height of three to five feet by the end of the second year. Without sufficient moisture, individuals may survive for several years and be less than three feet high. "As a matter of fact," Ted points out, "you can just about tell how long ago the last flood came down a desert canyon by the size of the smoke trees you find there."

Incidentally, smoke tree seedlings are so dissimilar to the adult plants that a novice would pass them by without recognition. The primary leaves are long and fairly wide, slightly serrated and with strong visible veins. It is several weeks before the characteristic thorny structure becomes prominent.

It is not always easy to obtain the seed of desert plants and sometimes great patience is required. Once Hutchison found it necessary to resort to strategy. He greatly desired to obtain the seed of the *Brandegea Bigelovii*. This is a plant having a fragrant but very inconspicuous white flower and a delightfully vivid green, wide-spreading structure which makes it suitable for covering walls and fences. It is one of the most gorgeous greens in all the desert flora. The seed pods had already burst and it was next to impossible to distinguish the tiny seeds lying upon the ground. But Ted noticed that ants were industriously harvesting the seeds and transporting them to their



A typical seedling of Atriplex hymenelytra, Desert Holly. This interesting plant, says Ted Hutchison, will someday find a treasured place not only in our gardens but also in our pots and salads!

storerooms. "It was the *Bigelovii* that made me a hijacker," he grinned, reminiscently. "It was a very simple matter to hold up the ants and steal their plunder!" In this way he was able to obtain sufficient seed for an adequate planting. That the ants might not become too discouraged and abandon their work under the *Bigelovii*, Ted began to give them mustard seed which he happened to have with him in exchange for their *Bigelovii*. Thus the ants kept coming back until the intruder had secured all the seed he needed. "It was an even swap after all," Ted commented.

Some attractive plants have the little trick of exploding their seed pods

so that the seeds scatter some distance from the parent plant. Others have little silk parachutes attached and these take to the air when released from their cases. Ted has found that generally speaking if a wide shallow cardboard box is placed beneath the plant whose seeds are being sought, and the plant then firmly shaken, it is possible to collect abundant seeds—along with bits of leaves and stems, a variety of bugs, beetles and spiders.

"Desert seeds are very temperamental," Hutchison said. "They may come up within a few days of planting and they may not appear for weeks or even months. Once, in the spring, I planted some prickly poppy seeds in



Ted Hutchison showing Don Admiral, left, how he collects the seed of the Chuparosa in a tobacco sack. The plants, left to right, are: Spoon thorn from Sonora, Blue Palm from Baja California, Chuparosa from California, Bonanza Daisy from Nevada and a Perfume Acacia from Arizona.

pots and waited for many weeks for them to sprout. I finally despaired of getting any results and planted some ocotillo seed in the same pots. In due time I had a fine showing of ocotillo seedlings. After the hot weather ended in the fall the poppy seed suddenly came to life, sending up their shoots in the midst of the ocotillo seedlings as though jealous of the attention they were receiving."

Experimenting with ironwood, Ted has found that the seeds of *Olneya Tesota*, if planted in the early summer, will usually survive and make fine plants. If planted in the fall, he loses most of them in the cold weather which follows, for they seem very susceptible to the cold when small. "It is rather interesting," he points out "that wherever you find ironwood growing in its native state, the temperature invariably is perfect for the cultivation

of citrus!" So if you are contemplating setting out a citrus grove somewhere in the desert region, take a look around for ironwood. If you find some you may rest assured that your citrus will do all right there!

The comfort of most desert homes is greatly enhanced if adequate shade can be provided. Hutchison believes that a variety of desert trees planted at strategic locations about the grounds not only will furnish the desired shade but also add an assortment of colorful blossoms in season. Ironwood, for instance, has a delicate violet flower that often is so profuse as to color the whole tree. Palo Verde, on the other hand, displays a golden cascade of canary yellow in sharp contrast to the more somber shade of the ironwood.

The phantom smoke tree with its blue-gray and straw branches and deep blue, sometimes almost black bloom,

while not suitable for shade nevertheless contributes much to the general landscape when properly cared for. In Southern California palm trees are extensively employed for ornamental purposes. These are easily raised from seed and while they are rather slow growing, once rooted firmly they can withstand much harsh treatment. Both the native *Washingtonia filifera* and *robusta* are obtainable in quantity and as seedlings they make very interesting plants.

"Once you get your seedlings coming along nicely," I asked Ted, "how do you keep them healthy and thriving?"

"Oh, that is a very simple matter," he assured me. "I have concocted what I call my 'desert cocktail' which contains everything that young plants require to nourish them. So far, though, I'm only using it on my desert holly."

This desert cocktail is a mixture composed of one tablespoonful of common salt, one teaspoonful of liquid fertilizer, one tablet of vitamin B1 and one tablet of nicotinic acid to the gallon of water. This mixture Hutchison uses on his holly about twice a month until strong growth develops. Then about twice a year he gives them a special treatment. This consists of pinches of washing soda, borax, Glauber's salts, Epsom salt, etc. On extra hot days he shades his pots so the roots won't burn.

Ted is looking forward to the time when his seedling trees will be large enough to provide cuttings. The seed of many desert trees and shrubs is highly variable but cuttings of the parent stock will always be identical to the parent. One tree which readily grows from cuttings is the so-called desert willow or desert catalpa, *Chilopsis linearis*, also known occasionally as desert orchid. It is a true catalpa. Branches can be cut to any desired length, placed in a bucket of water until leaf buds and rootlets appear and then placed in moist soil. This plant will do very well if placed near the drain of the inevitable desert cooler. It requires abundant water to get started but once rooted firmly it grows at an astonishing rate if kept damp. This is also true of the tamarisk and the cottonwood. The desert catalpa, when given sufficient moisture, will remain in bloom all summer, its large showy violet-scented blossoms making a very pleasing addition to any desert garden; and it can be trimmed for shade.

Ted now has available in commercial quantity more than 50 varieties of desert plants suitable for cultivation in private gardens. Some are colorful

flowering plants such as the chuparosa, California fuchsia and scarlet bugler. Others are decorative shrubs like the Crucifixion thorn, jojoba nut and mojave broom. Some have provocative names such as devil's tree, fairyduster, buggy whip and fool's gold.

Ted Hutchison is a native Californian. He was graduated from the University of California at Los Angeles and took graduate work at the University of Southern California in preparation for an academic career as a Spanish instructor. When he discovered the serious nature of his arthritic condition he decided on desert horticulture. The field was untouched. With the exception of the cacti and other succulents, no one had attempted to raise purely desert plants on a commercial basis. Yet thousands of interested persons were clamoring for this type of garden material.

Ted's beginnings were very humble. His first sale from the Desert Plant nursery was in August of 1946 and netted him fifty cents. It wasn't even a desert plant. The late humorist, Irving Cobb, had brought some mint from his home at Paducah, Ky. to Palm Springs for his private mint juleps and had given some of it to John Hilton. Hilton gave a start of it to Ted and some of this constituted his first sale. The following month his sales jumped to more than eight dollars, largely for desert holly. In October of that year he took in forty dollars. Since then his little business has steadily mounted until now it has become firmly established and is earning him a comfortable living. Up to now he has continued to occupy the land leased to him by Don Admiral.

On the first of April of this year, however, Ted moved his business to the Mojave desert, where he has acquired land on Highway 66. Here he plans to develop a real desert center with eventual facilities for over-night guests. He feels that if he can provide accommodations for garden clubs and other interested botanic groups, he can do more to spread the culture of desert flora. He has in mind mapping several short field trips to striking desert areas in the Mojave so that visitors to the desert can derive added enjoyment by personally visiting choice areas where flowers can be seen and identified.

With the new enlarged facilities, Ted will continue his experimentation in raising desert holly and other seedlings from variable seed. He hopes to be able to build up a greatly improved strain of the more popular desert plants for those who cherish them as floral decorations or as garden vari-

eties. Thus for a moderate expenditure, those interested can procure almost any desired species of desert shrub or plant without the necessity of traveling to some remote canyon or of risking the hazards of being found in illegal possession of some forbidden item. The law prohibits the picking or uprooting of desert plants but it places no restriction upon raising those same plants from seed.

Although he has become a well informed horticulturist in his field, Ted considers himself first of all a conservationist. So many thousands of people who have a natural desire to beautify their homes and gardens with attractive desert plants have gone into the desert areas in futile attempts to transplant the characteristic flora of the hot, dry, sandy places that they have all

but completely denuded many a formerly glorious mile of desert roadway. So widespread has been the wanton destruction of native verdure that laws have been passed by most states protecting wild plantlife.

At his new location six miles west of Barstow Ted has 1½ acres of his own land with a good well, and here with more space with which to work, he plans to carry on his program of experimentation and propagation on a much larger scale than has been possible in the past.

His is a unique enterprise in which he feels he is rendering an important service in the preservation of the floral beauty of the desert country. Ted is a friendly fellow who lives beside the road and is always glad to share his knowledge of desert plants with others.

Wanted--Desert Flower Pictures...

... Prize Contest Announcement

During March and April hundreds of photographers, both professional and amateur, invaded the desert country to record on film the most gorgeous display of wildflowers the desert has known in many years. In order that Desert Magazine readers may have the opportunity to see some of the best of these pictures Desert's May contest will be devoted exclusively to wildflowers—growing on the desert.

Entries for this month's contest must be in the Desert Magazine office, Palm Desert, California, by May 20, and winning prints will appear in the July issue. Pictures which arrive too late for one month's contest are entered in the next. First prize is \$10.00; second prize, \$5.00. For non-winning pictures accepted for publication, \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

THE *Desert* MAGAZINE
PALM DESERT, CALIFORNIA

By JIMMIE BREWER

ABOUT a dozen years ago I was heading into the western Navajo reservation. At the sand-blasted, windswept Red Lake trading post, postoffice Tonalea, Arizona, I stopped to see my old friends John and June Taylor.

After chatting a few moments John invited me into the storeroom where the Navajo rugs were neatly piled. "Jimmie," he said, "I want you to see one of the prettiest rugs ever brought in to this post."

"It really is a work of art," I told him, after examining the rug.

"It's a Holiday rug," John said.

"It certainly has a festive look and is well named," I replied.

"No," John said, "it gets its name from the weaver—Helen Holiday."

John went on to tell me about the Holiday family. He had first met them at Oljato and learned to prize their rugs very highly. One of the Holiday girls had married into a family living on Calamity Flat and her rugs were now being brought into the Red Lake post.

The Holiday rug is as distinctive as a Two-Gray Hills rug or a Yebetchai rug from Shiprock, or a storm pattern rug from the Navajo Mountain area. It is characterized by a narrow line of different color around each element in the intricate design. This characteristic distinguishes Holiday weaves from all other weavers' rugs. In other respects the rug is typical of exceptionally good Navajo weaving. More fine workmanship goes into a Holiday rug than into all of the unspecialized weaves put together.

These fine weaves are not a matter of chance. They depend first on careful selection of sheep that produce wool suitable for dyeing and weaving. The fibre must lend itself to carding and spinning a strong tight strand because in all Holiday rugs the weave is fine and smooth. I have never seen a coarse rough weave in a Holiday rug. Careful washing of the wool is standard operating procedure for a Holiday weaver. I have never seen a Holiday rug doped with gypsum to whiten the white. In the use of Diamond dyes a weaver often attempts to stretch the dye too far, to dye too much wool. This usually results in a lighter shade and two or more shades appear in the same rug. Never in these Holiday rugs have I seen improperly dyed wool.

Such care is given each step that from shearing the sheep to the finished rug is a matter of many weeks—back tiring, eye straining weeks for which



These are the competent hands of Helen Holiday, an excellent young weaver who has not yet mastered the advanced technique of her older sisters and cousins.

Skilled Hands at the Loom

To the untrained eye, a Navajo rug is a Navajo rug. But to those who have learned to judge the skill of the hands and the pride in the heart of those who make these colorful rugs of Indian design, there is a vast difference. Here is an intimate glimpse of a Navajo girl whose family has made the name "Holiday" the trademark of superior craftsmanship in the weaving of rugs.

the artist averages less than 20 cents an hour.

Helen Holiday was born and raised in Segi-Ot-Sosi (Slim Canyon) north of Kayenta, Arizona. The family hogan was so far removed from any school that Helen received no formal education and even now speaks no English. Her family owns a peach orchard and preserving or drying peaches is an autumn chore that takes precedence over weaving.

Seth Bigman, Helen's husband, was schooled in Tuba City and his high school education was fostered by a kindly family in Utah where he attended Roosevelt high. His English is fluent and his knowledge of the Indian country has qualified him as a seasonal park ranger at Navajo national monument.

In the spring Seth rides over to Betatkin and checks on the dates for his seasonal appointment. Then he borrows his brother's wagon and goes back to Segi-Ot-Sosi for Helen and Pat. They leave their small band of sheep with Helen's sisters and load the wagon full of bags of wool, bedding and utensils. One of the sacks looks as if it is full of melons. When Seth throws it off the wagon and it bounces on the ground we realize it's not melons but balls of spun warp.

The warp yarns used in a Holiday rug are spun tightly, and usually by the gnarled old hands of the grandmothers whose eyes are no longer good enough to weave the many-element designs.

A wonderful memory is also required by the weaver. Have you ever stopped to think that as she starts the second half of the rug the first half is rolled and sewed up at the bottom of the loom and completely out of sight? As the rug progresses the weaver often is required to take a turn at herding the sheep or chopping wood to prepare meals for the family or to move the household to another hogan and greener grass or even to have a baby. In a Holiday rug those many zigs and zags require the memory of an elephant. And remember too, that all she ever measures with is her outstretched thumb and finger and the width of her fingers.

As a photographer who knows the many steps required to make a good picture I take my hat off to these superior weavers who know the many steps required to make a good rug. Flub any step in the process and the result would never reach the high standard of the Holiday weavers.



Helen Holiday grew up in a hogan so far from any reservation school that she never learned to speak English. Her husband, Seth Bigman, is seasonal park ranger at the Navajo national monument in northern Arizona.

Says Reservation will Not Support Navajo, Hopi . . .

Training and employment off the reservation are the only solution to economic problems of the Navajo and Hopi Indians, in the opinion of Interior Secretary J. A. Krug. Less than half the 65,000 members of these two tribes can expect their Arizona and New Mexico reservations to produce a living for them, Krug contends. The secretary has recommended a 10-year program to congress for expanding schools, hospitals, roads, irrigation and conservation projects and small industries.

In his annual report, Krug pointed out in Washington that resources owned by Indians, consisting principally of 56 million acres of land, are for the most

part poor in quality, insufficient in quantity. Great improvements have been made since the 1930's, in Krug's opinion, but Indians generally—there are exceptions—still lack training, health, equipment, credit facilities. These are listed as essential difficulties confronting the nation's 400,000 Indians.

Fundamental problem is the disparity that exists between Indian population and available economic opportunity. For example, land area of the Navajo and Hopi reservations in Arizona and New Mexico exceeds 16,000,000 acres—yet no more than half the 65,000 Indians can hope to make their livelihood on the reservations.



YOU, DESERT!

By GRACE PARSONS HARMON
Los Angeles 37, California

You, Desert,
Took shards of my heart, and through each
part
Strung silver strands from moonbeam bands
And spangled blue of fragrant nights.

You, Desert,
Took shards of my heart, and made each
part
A lovely thing to glow and sing
Because my heart still knew love's heights.

You, Desert,
Took that glowing heart, my loving heart,
And kept it true, although it knew
The love it craved
Might never be a part of me.

You, Desert,
Wise in silence, saved
The heart of me!

DESERT ROCKS

By EDNA BERNICE O'BRIEN
Ontario, California

Since I have come to this lonely land
All of the silent stars are blind,
And earth cares only for her sand . . .
. . . The rocks, only the rocks are kind.

At night I lie and feel the force
Of cold, hard stone beneath my head.
I watch the moon move through her course
Her light falls white upon my bed.

The desert rocks are huge and neat;
Each one is like a paragon.
They shelter me from noon-day heat,
These towering giants in the sun.

I grow so small in this expanse;
A crawling speck upon white space . . .
. . . No bigger than the other ants . . .
And yet, I love this lonely place.

Let the silent stars stay blind,
Let me be valued less than sand,
As long as desert rocks are kind,
I will not leave this lonely land!

THE GRAND CANYON

By GRACE SANDFORD
Southgate, California

It was sculptured, they say, by the river's
rush,
As it cut through the rock and sod.
It was painted, they say, by the desert's
brush;
But I saw the hand of God.

SOOTHIN' DESERT STILLNESS

By G. P. PRICE
San Bernardino, California

I was just a sorta thinkin'
Th' other day on yonder hill,
That it's nice among the cactus
In a world where all is still

'Twas nice to see the sun apaintin'
The valley over there;
And the flowers alookin' skyward,
Beckonin' to all of us who care.

It was kinda hard to swallow
As I thought how much we gain
From the soothin' desert stillness
In this land of little rain

There's a mighty thankful feelin'
To the God who made this land,
For the beauty He has brought me
Out here on the desert sand.

Hope

By TANYA SOUTH
San Diego 10, California

Hope soars. 'Tis of eternal stuff.
It can o'ercome the worst of rough
Hard faring, and be ready still
To soar, to strive, to seek God's will,
And help the soul as best it may
Upon the spiritual Way.
Ah, Hope! Cling to it fast, you souls,
For through it Truth unrolls.

Queen of the Night

By IRMA MYERS ARTHUR
Vallejo, California

Patiently changing the sun's brilliant light,
Filling each bud with a daintier might,
Now the proud Cereus readies the hour
That marvels the night with her mystical
power.

Gently she touches each blossoming case,
Crowning the petals in delicate lace . . .
Darkness surrenders as over the dunes
Soft as a zephyr roll white lovely moons . . .

CABALA OF THE SIERRAS

By LUCILLE EVANS
Los Angeles, California

In syllables of granite, in hieroglyphs of
stone,
These tomes of vast creation, written for
the eyes
Of worship and of wonder, open in these
lone
And tranced moments under curving skies
That roof this temple. Monoliths upthrown
Discourse eternally their grandeur-themes
In rubricated sermons. Words man had not
known
Are graven here, high symbols of his
dreams.

And man, unschooled till now, may slowly
read
The cryptic chapters, as his mind, in awe,
Studies the cabala, knowing it will feed
His hungry spirit while he strives to draw
Close to The Great Inscraper, hearing the
pines
Speak their green parables . . . and sud-
den, the intent
Of all creation comes, and he translates the
lines
Chronicled on ancient rocks in testament.

THE SOUTHWEST

By ELSIE DEVERELL WELSH
Tombstone, Arizona

For ages men have fought this desert land,
Their cultures wax and wane, they pass
away,
One race and then another tries its hand,
And flowers briefly for its own short day,
But ever the wind, the sand and the sun
Are the Monarchs who rule, and it is they
Who hold dominion while the ages run,
No race triumphs, nor long combats their
sway.
The sand has buried the cities men build,
And around the ruins their bleached
bones lie
While cacti possess the fields they've tilled,
And the coyotes howl to the moonlit sky.
The age old story of deserts and men
Is: the desert waits while they build again.

CONSECRATION

By CATHRYN ADAMS
Loma Linda, California

Waked from slumber, wrapt in wonder,
Just as dawned the new-born day,
In the breathless morning magic,
From the sand on which I lay,—
From the white sand, clean and drifted,
There I saw the desert pray:
Saw ten thousand arms uplifted,
Silhouettes against the sky;
Saw ten thousand mute forms standing,
Unaware of such as I.

Filled my heart with strange elation,
Viewing there such consecration.

LETTERS...

Here's Another Flapjack Expert . . .

Panamint Camp, California

Desert:

I like your flapjack yarns very much although I don't believe the authors ever ate a good one. They don't even know how to make or cook one. We have a hard time out here on the desert to exist. We make as follows: 1 quart alkali dust. Grease rendered from 2 medium-sized rattlesnakes and 1½ quarts burro milk. Stir well with any good cactus. Throw the batter outside on a flat rock and let the sun's violet rays cook them. The wind will turn them over when they dry out some and the pet pack rat will bring them in for serving. No they don't stick. The rock is too slick with desert varnish. Some people think the Panamint Valley is no place to go. But she sure am nice out here. Everything looks green after the rains which fell early this month. Met some people from the Glendale Gem club today—looking for rocks.

By the way, it won't be long until we can go from Trona to Wild Rose Canyon on a good oiled surface road. There are now 15 more miles under construction and Arthur A. Johnson, the contractor says, "Why, sure, me boy. She will be ready to drive over in a short time." This road has been a dream road for 20 years. By the way, the Mayor of Ballarat is going to take a bath for the grand opening of the highway, whether he needs one or not. Oh! the mayor? You will be surprised. It's no other than Seldom Seen Slim.

BEN O. MORTON

• • •

Right Name, Wrong Lizard . . .

Los Angeles, California

Desert:

Since it was interest in reptiles which first introduced me to your side of the mountains, I'm especially thrilled to find articles relating to the desert's natural history. Must say, however, that *Desert's* policy of widely varied subject matter has increased greatly the pleasure we get from our too infrequent trips.

At any rate, I thought I'd add my letter to the pile of those telling you that the little speed demon pictured in Richard L. Cassell's article, "Lizard With Spots and Speed" is the Desert Gridiron-tailed Lizard, *Callisaurus ventralis*. I can't tell which subspecies it is, but it is probably *C.v.gabbii*. The text of the article, of course, concerns

the Leopard Lizard, which is speedy and pretty enough, but has a nasty disposition. The smug appearance of the Gridiron-tail shown in Cassell's excellent photograph is consistent with the clown-like antics of this lizard.

And while I'm in a criticising mood—I think that the Carlsbad man who killed the "two-legged rattler" would be a bit chagrined to hear that he has given a rather good description of the extruded hemipenes—the paired male copulatory organs—which are found on about 50% of all the snakes on this earth.

I suppose the reason that you get so many letter from us beefers is that your magazine is so avidly devoured that no one misses a word.

JAMES T. DEUEL, M.D.

Thanks to you, Dr. Deuel, and to the other readers who called our attention to the incorrect caption. Desert's Lizard Editor promises to look 'em over more carefully after this.—R.H.



Homesteader in Morongo . . .

Huntington Park, California

Desert:

After reading the story of "Hot Rocks" in the March issue of *Desert* I thought you should know about the progress being made by the jackrabbit homesteaders in Morongo valley—Section 15.

Here is a picture of our cabin. The lumber was hauled from Los Angeles, the adobe bricks from Montebello. The U.S. land inspectors have approved the buildings and the land patent received. We planned the cabin for vacations, and for a future residence.

DR. DWIGHT L. RAWSON

• • •

Yes, It Could Be . . .

Randsburg, California

Desert:

I read the poems in your magazine—and some of them are very good, but I keep wondering about one thing.

They write of desert beauty and its inspiration—but their addresses generally are in cities of large population. Could it be that desert rats like me who live and breathe this beauty day and night are so steeped in it, and its constant loneliness, that we cannot write?

BARBARA SHIRLEY

Even the Pelicans Know Better . . .

Riverside, California

Desert:

Not that I'm trying to win the \$20,000 in prizes in your True and False contest (page 22, April issue) but feel it's my duty to point out that you are wrong in your own answer to question No. 20. I am enclosing map to prove that Pyramid lake is in Nevada, not in Utah.

JOY MARCUS

• • •

La Mesa, California

Desert:

Upon reading your True and False in the April issue, my wife and I are surprised to learn that Pyramid lake has moved to Utah. When we visited it last May it was in Nevada.

W. L. PUTNAM

• • •

Hollywood, California

Desert:

Since Nevada is a pretty dry state—at least as far as water goes—and Utah already has its Great Salt Lake, let's leave Pyramid lake where it is.

W. PHILLIPS

• • •

Los Angeles, California

Desert:

Even the pelicans know that Pyramid lake is in Nevada.

TIM HARNEDY

To Tim Harnedy and the 83 other Desert readers who called our attention to this blunder, the Geography Editor offers blushing apologies. Pyramid lake has been the home of Nevada's Paiutes and pelicans for countless ages, and we have no intention of trying to move their traditional birthplace one inch from its present location.—R.H.

Keep Your Back Copies of Desert for Quick Reference

Attractive loose-leaf binders in Spanish grain leather, gold-embossed, are available for those Desert readers who want to keep their back copies for the maps and travel information they contain. Each binder holds 12 issues. Easy to insert, and they open flat.

Mailed postpaid for
\$1.50

THE *Desert* MAGAZINE
PALM DESERT, CALIFORNIA

Music for Shiprock . . .

Shiprock, New Mexico

Desert:

Probably not many readers of *Desert Magazine* are acquainted with the Northern Navajo hospital located out here in the northeastern part of the reservation. It is maintained by the Indian Service for the Indians in this region, and there are from 35 to 50 patients here all the time.

At Christmas in 1947 the "Quiz Kids" program sent us a big Zenith radio-phonograph and later the "Free for All" program in Hollywood sent loud speakers to serve the wards. But not many records are available, and perhaps there are readers of *Desert Magazine* who have little-used records they would be willing to send here. The Indians love music, preferring instrumental, western and march numbers.

The hospital also can make good use of clothing for both adults and children as there are always families who need and appreciate such things.

Packages may be sent either by mail or express to: Superintendent, No. Navajo Hospital, Shiprock, New Mexico.

Since it is not the policy of the Indian Service to solicit contributions, we are writing this letter merely as friends of the Indians in this area.

MR. AND MRS. VAL HOVAK

• • •

Report on Condors . . .

Los Angeles, California

Desert:

Yesterday, I had the pleasure of watching a pair of huge condors, just outside of Palm Springs. Never had heard of them being around there.

These were perched atop a rock on

the highest point of the hill or mountain which forms the east wall of Palm Canyon at its mouth. They were so huge that I could see them with the naked eye, etched against the sky, though by airline they were fully a mile and a half away. Through my binoculars they were plainly visible. When they turned sideways, their condor identity became even more evident, though I had never seen any be-

fore except in the San Diego zoo. After a half hour, they took off, soared about for a while over the mountain top and then disappeared up Palm Canyon.

Now, having seen two gila monsters at Palm Springs and these condors, I wonder if there can be anything else for me to discover! Yet, it is said, there is always something new on the desert.

R. W. GRESSER

Report on Wildflowers . . .

As this forecast goes to press early in April, the highways in Southern California's Coachella valley are thronged with bumper-to-bumper weekend traffic—the cars of motorists attracted to the desert country by the most gorgeous wildflower display in many years. Hundreds of those who come have brought their cameras—or paint brushes and easels—in an effort to capture the coloring of dunes carpeted with verbena, primrose and desert sunflower.

The peak of verbena and primrose flowering was in evidence the last week in March on the sandy floor of the lower levels in Southern California and Arizona.

But as the low-lying purple blossoms of verbena and the white of the evening primrose faded, new species began making their appearance—purple phacelia, better known as wild heliotrope, white desert chicory, various members of the sunflower clan, later species of primrose and myriads of less conspicuous blossoms.

While mass displays of the lowland

annuals will have passed before the first of May, the flowering season of many annuals and most of the perennials will continue on through April, and on the higher levels, in May. These include the cacti, yuccas, ocotillo, nolina, agave, encelia and palo verde and smoke trees.

Late March sand storms which did some damage to sand dune flowers did not seriously damage the fields of blossoms in Borrego valley, according to Ed. DuVall.

CALIFORNIA

"There is new snow on the Tehachapis which means more cold to retard growth. So from all evidence May should be the big month for flowers in Antelope valley and surrounding hills," writes Jane S. Pinheiro from Lancaster, California. "The poppy fields in the west end of the valley are slow but the first part of May should find them in bloom. Over HiVista way things are more advanced than in the valley but although plants are coming up in profusion, yellow peppergrass is the only species in bloom. Primrose, verbena, gilia and coreopsis are just beginning to bud and May should find a beautiful display. All weather signs to the contrary the Joshua trees are going to blossom immediately."

Many flowers and beavertail and hedgehog cactus were in bloom in the Twentynine Palms area by April 1. Mary M. Schenck reports that at higher elevations blackbush, cottonthorn, goldenbush, bush monkey flower, bush penstemon and Mojave sage will all be found in bloom in May. At lower elevations the pancake and barrel cactus and shrubs such as ratany, dalea and catsclaw will bloom. Among the trees—desert willow, mesquite, smoke tree and desert ironwood blossom in May and June and the yucca will still be in flower at high elevations. Such showy blossoms as heart-leaved primrose, small-leaved

ABOUT THIS \$10,000 REWARD

Currently offered by the ATOMIC ENERGY COMMISSION in connection with its Uranium Development Program

You do NOT need elaborate, expensive apparatus to enter this patriotic program which is so vital to our National Security and Welfare.

The greatest Uranium find in history was achieved by a prospector operating with limited finances and practically no specialized equipment.

Our URANIUM DETECTOR radioscope, priced at \$7.50, operates on long recognized scientific principles, and provides easy detection of radioactivity characteristic of Uranium minerals. Supplied complete with simple instructions, GUARANTEED. Send Money Order or check to:

SPECIAL PRODUCTS CO.

P.O. BOX 832
REDLANDS, CALIFORNIA

amsonia, desert paint-brush, and several handsome penstemons will be seen. Low growing desert gilia and *platystemon californicus crinitus* will cover the ground. And May is the time to see desert mariposa *Calochortus Kennedyi*, the most brilliant of all the mariposas.

"Inasmuch as the flowering season of the monument proper, which has an elevation of 3000 feet, is not until the latter part of April and the first part of May it is possible that moisture conditions will improve before that time. The monument received more than its usual amount of moisture during the winter but none has fallen this spring. In any event there will be at least a fair display of a wide variety of wildflowers," is the word received from Frank R. Givens, superintendent Joshua Tree National monument.

John Hilton, Mecca desert artist, reports "The ocotillo is resplendent in red along Coyote creek in upper Borrego valley. But here as in Coachella valley the peak of the flowering season will have been reached by May 1."

Myrtle Botts, Julian, California, also reports that flowers in Borrego desert reached their prime in April with hundreds of blossoms providing a mass display for visitors driving through. "The lilies are not yet out in the numbers that should appear after the amount of rain this year, the frost having done considerable damage, but near Ocotillo they are coming out in greater numbers daily," writes Mrs. Botts.

An abundance of senecio, white tidytips, pincushion flower, senna, coreopsis, woolly eriophyllum, millions of verbena, tansey, bell and cup phacelia, yellow and white fiddleneck, blue larkspur, dalea, chia, mallow, several kinds of buckwheat, sunflower, dwarf mimulus or monkey flower and sand blazing star are among the flowers in bloom. If weather conditions remain favorable, a variety will be in blossom for the annual Julian wildflower show to be held May 7 through May 29.

"There will be a fine display of desert lilies on the Barstow Granite wells to Searles Lake road and Barstow to Camp Erwin road beginning mid-April," writes A. Fred Eads. The national guard has taken over the camp but the lily field is open to the public.

From Trona comes news of recent heavy frosts in the Rand district, Indian Wells valley and Searles valley. Clark W. Mills reports that most observers are of the opinion that flowers under bushes or other natural protection did not suffer from the frost. All, however, are agreed that the cold snap will retard the growth and bloom. Followers of the wildflower season generally agree that May should be the climax of the best wildflowers in years. A cool June, and the old timers predict one, should keep flowers in the higher altitudes good till the latter part of that month. Mills had predicted a good showing by mid-March but no blooms are expected now till late April. "The unusual weather this year has

knocked my predictions," explains Mills.

L. Floyd Keller, park naturalist, Death Valley National monument, says the success of below-sea-level flora will be determined by a continued lack of hot dry winds through the interim period. Evening primrose, desert sunflower, verbena, scarlet mimulus and phacelia are the first blooms expected in Death valley, and the peak season at Easter. This will probably be a spotted display. Conditions are more favorable for blooming at successive elevations above 1000 feet after Easter and through May. "Due to the vast amount of snow on the Panamints and Amargosa ranges, later spring and summer flowers will be prolific," predicts Keller.

ARIZONA

"Visitors should arrange to visit the Tucson area during the last of April and early in May if they wish to see the cactus blooms at their best," advises Marvin H. Frost, acting naturalist Saguaro National monument. "Palo Verde should be in bloom early in May and this year we look for a heavy bloom coverage. Hedgehog cactus is in bud, and saguaro and most cacti will be in blossom in May," Frost reports.

Earl Jackson, superintendent Tumacacori National monument, writes: "We've had a small rain, the first moisture in three weeks; the ground had thoroughly dried after the winter rains and we've had no local display of

Director, Palm Desert Art Gallery . . .

Twenty-five years of close association with the world of art gave J. Marie Ropp exceptional qualifications for the role she assumed last September when she was selected as director of the Palm Desert Art Gallery in the Desert Magazine's new Coachella valley pueblo.

For many years Mrs. Ropp was a member of the board of directors of the Laguna Beach Art association, and was active in the annual presentation of the Festival of Arts at the beach community. While there she also organized a Junior Art association, and sponsored and directed a traveling art exhibit which took some of the finest work of western artists to Southwestern communities.

She was art chairman for the Laguna Beach Women's club, of which she was a charter member, and a Girl Scout commissioner. Before coming to Palm



J. Marie Ropp, director Palm Desert Art Gallery

Desert Mrs. Ropp established the "Little Gallery of the Desert" at Desert Hot Springs which she kept open 3½ years.

In the exhibit room at the Desert Magazine building she has sought to bring together the best work of desert painters in three Southwestern states, and has received fine cooperation from the artists themselves, with the result that this exhibit is generally conceded to be the finest collection of exclusively desert oil and water paintings yet assembled.

The 186 canvases currently on exhibit in the gallery are all labeled with the subject, the name of the artist, and the price for which the painting may be purchased. There is no admission charge and hundreds of visitors have been coming to the gallery daily during the winter season to view the exhibit which is kept open from eight until five o'clock seven days a week.

flowers—although several small varieties are now in bloom. During the first part of May the ocotillo, prickly pear, cholla and rainbow cactus should be in good bloom in the surrounding foothills. Between here and Tucson there should be masses of palo verdes in bloom during the last of April and first week of May. By the middle of May most cactus varieties here are past their peak of bloom, and the country is getting dry by then."

"An excellent flower showing in May with many of the cacti in full bloom," is the prediction of A. T. Bicknell, superintendent Casa Grande National monument. But he believes the display of the California poppies blooming in profusion on Picacho Peaks will be over.

NEVADA

"Generally cool weather has delayed the spring flowers," reports Maurice Sullivan, park naturalist Lake Mead Recreational area. "Leaves of many creosote bushes were killed at elevations above 3000 feet, but it is too early to ascertain the extent of frost damage. Beavertail cactus stems are covered with buds and all perennials are going to outdo themselves."

Dora Tucker reports that a cold spring retarded the wildflower growth in the Las Vegas, Boulder City and Lake Shore areas, but with warmer days and clear skies the desert is taking on color, and most of the flowers are in bloom. Ironwood, ocotillo, palo verde and the yuccas will add their blossoms to the flower show in May.

NEW MEXICO

The state flower of New Mexico—

Pinon Incense...

Bring the delightful fragrance of the Pinon Forest into your home or office. The burner is a miniature model of the outdoor baking ovens used by prehistoric Indians, and still in use in New Mexico pueblos. When the little cones of genuine pinon pine are burned in this tiny oven the aroma is a breath of the outdoor Southwest.

Kills kitchen and bathroom odors and removes the smell of stale tobacco. Pueblo Indians burn pinon for nasal and bronchial ailments.

Burner and 15 cones.....\$1.50

Burner and 54 cones..... 2.70

Extra cones, 36 for..... 1.25

Postpaid to You

DESERT CRAFTS SHOP

Palm Desert, California

DESERT CLOSE-UPS

George M. Roy is known to *Desert* readers as a photographer, his pictures having appeared in several past issues of the magazine. This month George appears in a new role—as the author of a very interesting story about Ted Hutchison and his experiments in the propagation of desert plants.

In his 40-odd years George has filled many roles. He served on the secretarial staff of the governor of Arizona before the war and before that he was a professional genealogist in California and Arizona.

During the war he served in the navy, and soon after his return was married to Lois Elder, who has written both poetry and feature articles for *Desert*. They made their home in Maine for nearly two years where George was one of the directors of the Museum of Natural History at Portland. He has done considerable lecturing on Indian lore, has been active in Boy Scouting and in his hobby as a mineral collector.

Last year the Roys returned to California "to live closer to the desert" and were members of the special staff employed by *Desert Magazine* to install the printing plant and book store at the new Palm Desert location.

Having lived most of his life near

the yucca—is most prominent from mid-May to mid-June, according to Howard J. Dittmer, University of New Mexico professor. The smaller forms, such as *yucca glauca* and *Y. baccata* are the earliest, but the true majesty of the yucca is only reached by the tree yucca of southwestern New Mexico. This plant often reaches a height of 20 or more feet with its flowering spike over 10 feet long. Dittmer writes, "From June 1-15 the beautiful Cane cactus can be found in bloom throughout most of the state. A number of flowering shrubs were in bloom the latter part of March and April, but for the largest number of species in bloom at the same period summer is the ideal time of the year. Here from June through August we have hundreds of species coming into bloom—with all possible colors."

A riot of color has brought pleasure to thousands of desert dwellers and desert visitors. But despite official warnings and pleas of residents, blooms were gathered by the armfuls and taken away. Flowers should be admired but not picked to insure more good displays in years to come.

the shores of Great Salt Lake, David E. Miller is exceptionally well qualified to write on that subject. Dr. Miller is assistant professor of history at the University of Utah, and was awarded his Ph.D. in 1947 for his thesis based on studies of the lake.

Jimmy Brewer, whose story of the Holiday family, Navajo weavers, appears in this issue of *Desert Magazine*, is custodian of the Navajo national monument in northern Arizona, and the story is written from his personal experience with the Indians.

Jimmie has been in the Park service 15 years, the last 10 of them at Navajo monument. When Betatakin and Keet Seel ruins, the two best known cliff dwellings in the monument, are isolated by snow during the winter months, Jimmy is transferred for temporary duty to the Organ Pipe Cactus national monument near Ajo, Arizona.

During the war Jimmy served three years with the Seabees. His wife, Ida, formerly was a nurse in the U. S. Navy.

Randall Henderson, editor of the *Desert Magazine* and Cyria Allen Cathro, sculptress who has been a member of the art staff at Warner Bros. studios in Hollywood the last five years, were married in Phoenix, Arizona, March 18. The bride and groom first met when she was exhibiting some of her clay models in the *Desert Magazine's* art gallery several months ago.

The bride holds a bachelor of arts degree from the University of California at Berkeley, and studied sculpture in the San Francisco School of Fine Arts and the Art Students' League in New York. She was a resident of the British Empire 12 years, in England, Australia and South Africa. During her South African sojourn she had a display window in the Johannesburg publicity bureau for six years, and modeled hundreds of heads of native South Africans, portrait heads, plaques, garden figures, sun dials, etc. Following her return to the United States in 1941 she spent several months lecturing.

Randall Henderson holds a bachelor's degree from the University of Southern California. He began his newspaper career as a reporter on the Los Angeles Times and then turned to country journalism, first as a printer at Parker, Arizona, and later as editor of newspapers at Blythe and Calexico. He founded the *Desert Magazine* at El Centro 12 years ago, and in July, 1948, completed the art and publishing institution which he now manages at Palm Desert.

HERE AND THERE . . . on the Desert

Tree-Ring Display at Museum . . .

TUCSON—An extensive exhibit showing tree-ring dating of a New Mexican pueblo is on display at the state museum, University of Arizona campus. Half of the exhibit shows the mechanics of the tree-ring dating process, while the remainder shows the technique as applied to the Pueblo Bonita material. The university-sponsored exhibit was constructed especially for inclusion in the national museum's display of materials on the pueblo, and is to be installed at Washington as part of the permanent display.—*Tucson Daily Citizen*.

• • •

Ft. Huachuca to Revert to U.S. . . .

PHOENIX—Col. Frank E. Fraser, national guard executive officer, has announced that historic Fort Huachuca probably will revert to the government since the Arizona senate killed a bill which would have provided for the reservation's upkeep. The bill, introduced by Senator Earl Platt, also would have ratified acceptance of the guard's deed to its 40,000-acre share of the Cochise county reservation. The fish and game department would lose its 36,000 acres also, he predicted. Fraser based his assumption on the fact that the department could not maintain the section without utilities and other facilities located on the national guard's acreage.—*Yuma Daily Sun*.

• • •

If Grasshoppers Come . . .

PHOENIX—Grasshoppers will pester Arizona again this year but no severe infestations are in prospect and the state is prepared to combat whatever infestations do occur. Plenty of free sodium fluosilicate bait is on hand for farmers and rangemen who apply. Toxaphene or chlorodane, two new insecticides recommended by USDA entomologists for grasshopper control will be most widely used. The U.S. Bureau of Entomology will concentrate its activities on "hot spots", but will stand ready to advise and aid wherever grasshoppers are a problem.—*Arizona Farmer*.

• • •

Montezuma ranch, picturesque guest property near Hereford, is under new ownership following its sale to Miss Nancy Helms of Houston, Texas. The new owner plans to develop the ranch into an exclusive girls' camp.

Seek Consolidation of Dams . . .

PARKER—A bill to consolidate the Davis and Parker Dam power projects on the Colorado river has been introduced in Congress by John R. Murdock of Arizona. The bill provides that the combined plants be known as the Parker-Davis project. Effect of the measure would be to clear all power from the two big dams through a single office and at an identical price.—*Yuma Daily Sun*.

Mountain Lions Killed . . .

PHOENIX—During the past eight months 88 mountain lions and two wolves have been killed by non-government hunters, according to Lloyd Cavness, secretary of the Arizona livestock sanitary board. Bounties paid out so far total \$4,500. Most of the lions were shot in Yavapai, Gila and Santa Cruz counties.—*Tucson Daily Citizen*.

NEW FOLDER READY

NOW it's LUCERNE VALLEY, high desert community—center of interesting deposits, near mountains, lakes, fishing, winter sports. Here are all-year homesites, egg ranches, alfalfa fields with back drop of majestic peaks. WRITE today for new folder with picture-map, free. ADDRESS Chamber of Commerce LUCERNE VALLEY, San Bernardino Co., Calif.

SLEEP IN YOUR CAR . . .



CALIFORNIA CAR BED

Transferable luxurious, air-foam inner-spring unit converts your car to a double bed.

1-3 hours to install. No Cutting.

Now Available . . .

CUSTOM CRUISING SEAT . . .

Marvelous new dual front seats converting at a fingertouch to single OR double bed, reclining chairs, or chaise longue. An emergency ambulance, ideal for the tourist. Featured in Newsweek, June 21, P. 73. Write for Brochure "F."

CALIFORNIA CAR BED COMPANY

2725 W. 54th St., Los Angeles 43

AXminster 34700



Capture the Rainbow

IN 1949

...take the thrilling trip on mule back down Rainbow Trail 'mid colorful scenes so vivid no artist could portray . . . to the most spectacular of all national monuments . . . RAINBOW BRIDGE. Rest at picturesque RAINBOW LODGE, backed by the breathtaking span of Navajo Mountain . . . where comfortable lodging, excellent food and hospitality are, as before, directed by Bill and Mrs. Wilson.

Open April 1 to November 15

WRITE BILL WILSON, TONALEA, ARIZONA, FOR RATES AND A BROCHURE DESCRIBING "THE RAINBOW"

THE DESERT TRADING POST

Classified Advertising in This Section Costs 8c a word, \$1.00 Minimum Per Issue

INDIAN GOODS

RARE OLD Navajo blankets, Buffalo Hide tanned. Aubrey V. Smith, 4711 N. 16th St., Phoenix, Arizona.

FOR SALE—Collection of old Indian things, some with real scalp locks. Also five hundred Kachina dolls, one or all. One dollar up. Daniels Indian Trading Post, 401 West Foothill Blvd., Fontana, California.

ANCIENT INDIAN ARROWHEADS: 15 for \$1.00; 50—\$3.00; 100—\$5.00. Small peace pipe \$3.00. Other pipes \$5.00 to \$35.00. Metal pipe tomahawk \$17.50. Others \$25.00 to \$75.00. Beaded moccasins, pair \$5.00. Buckskin costumes, headdresses, turquoise necklaces, ancient stone axes, spears, Yumas, Folsoms. Antique guns for sale, or exchange for Indian relics. P. L. Summers, Stamford, Texas.

FOUR VERY FINE ancient Indian Arrowheads, \$1.00; 4 tiny perfect bird arrowheads, \$1.00; 1 ancient stone tomahawk, \$1.00; 2 flint skinning knives, \$1.00; 1 large flint hoe, \$1.00; 2 spearheads, \$1.00; 10 arrowheads from 10 states, \$1.00; 20 damaged arrowheads, \$1.00; 10 fish scalars, \$1.00; 10 hide scrapers, \$1.00; 4 perfect saw edged arrowheads, \$1.00. The above 11 offers \$10, postpaid. List free. Lear's, Kirby, Arkansas.

REAL ESTATE

10 A. DESERT RANCH home, domestic well, canal water soon, tidy 2-bedroom house, small guest house, lawn and shade trees. Wonderful view in all directions. Only \$9000. Terms. Ronald L. Johnson, Realtor, Thermal, Calif.

DESCANSO: 1 1/4 acre of choice land, 3 modern rental units partly furnished, large rock building suitable for shop, business or can be worked into two apartments, \$10,000, \$2,000 cash, \$150 per mo. This is a livelihood for someone. ALPINE: Homesites with water to irrigate family garden and orchard, grand view, most healthy climate in U.S. according to govt. report, \$850 per acre. OCOTILLO: Lots with water rights in mutual water co. \$250, average \$100 per acre. Business locations on Highway 80 and railroad. Get in on ground floor of a coming desert resort. Send for circular. John C. Chalupnik, Ocotillo, via Plaster City, California.

FOR SALE: Lode claim \$750.00 full price, 79 miles from Los Angeles, elevation 1800 ft., 1/2 mile to paved road, dirt road to end of claim. Adjoins working gold claim, same formation. This year's assessment work done. Burrell C. Dawson, 5745 1/2 Fair Ave., North Hollywood, Calif., Telephone SUset 1-8726.

BOOKS—MAGAZINES

OUTDOOR RAMBLER—An outdoor publication that's different. Two years, \$1.00; 60c year; 10c copy. Outdoor Rambler, Box 884, Ione, California.

URANIUM PROSPECTOR'S Handbook, \$1.00; non-technical, complete. Dept. T., Craft, Connor Publishing Co., 601 S. Vermont, Los Angeles 5, California.

BOOKFINDERS—Scarce, out of print, unusual books quickly supplied. Send wants. Clifton, Box 1377d, Beverly Hills, California.

PALM SPRINGS Annual Pictorial. Beautiful desert pictures. On desert newsstands 35c, by mail 45c. Villager Magazine, Palm Springs, California.

PALM SPRINGS VILLAGER—the monthly magazine that reflects in picture and story, life in a great desert vacation land. Single copies 45c, a year, 10 issues, \$3.50. Palm Springs Villager, Palm Springs, California.

GOLD! YOU CAN PAN GOLD—It's easy! Healthy, profitable occupation or hobby. Send for big, illustrated book, "Gold Panning for Profit"—\$1.00. Want some of my genuine California gold? One beautiful nugget, \$1.00. Four nuggets, \$2.00. Other wonderful specimen gold nuggets, \$5 and \$10 each. Desert Jim, 627 Lillian, Stockton, California.

BUSINESS OPPORTUNITIES

FOR SALE: GEMARTS, complete lapidary supply and equipment business. Has been operated on a part time basis since 1945 and has paid and grown every month since its inception. Will sell for slightly more than inventory. Accountants say it will provide a very good income if operated on a full time basis. Good investment for someone who wants only part time work. Good location. Steady list of buyers. Come in and see for yourself. GEMARTS, 4286 Mariborough, San Diego 5, Calif.

MISCELLANEOUS

LADY GODIVA "The World's Finest Beautifier." For women who wish to become beautiful, for women who wish to remain beautiful. An outstanding desert cream. For information write or call Lola Barnes, 963 No. Oakland, Pasadena 6, Calif. or phone SYcamore 4-2378.

KING'S PERFECT POCKET MAGNET for Prospectors and Engineers. Precision machined aluminum handle, pencil size with clip. Magnet is General Electric Alnico, world's most powerful permanent magnet material. Satisfaction guaranteed. Postpaid U. S. \$2.00. Canada \$2.25. King Gem Co., Box 186-D, Gallatin Gateway, Montana.

METEORITES WANTED, iron or stone, highest prices. Stuart Perry, Adrian, Michigan.

MANY RELICS of the old West consisting of both long and short guns, swords, etc. For information address O. J. Snyder, 301 E. Smith Ave., Tucumcari, New Mexico.

WANTED: Partner, to operate equipped gold mine, Northern California. Box 363, Central Valley, California.

PANNING GOLD—Another hobby for Rockhounds and Desert Roamers. Know how to pan gold, where to look for it and be able to recognize valuable quartz ledges. The places you go are where rich virgin ground is found. Two instruction booklets 25c or send your name for free literature and catalogue of mining books and supplies for beginners. Old Prospector, Box 21-B238, Dutch Flat, California.

LAPIDARY EQUIPMENT For Sale: 16 inch blade slabbing machine, arbor, sander, polisher—\$100.00. E. G. Davis, 940 1/2 S. Montebello Blvd., Montello, California. Phone Union 1-6556.

CACTI AND SUCCULENTS—From the deserts of the world. Don-Rita brand. By appointment only. Write us your needs and we will try to help you. Michael Donnelly Cacti Gardens, 334 Lowell St., Daly City, California.

LEARN the profitable jewelry and goldsmithing trade at home. Simplified course teaches jewelry designing, manufacture and repairing; gemsetting, etc. Gemcrafters, Dept. F., Kallispell, Montana.

FRED AND JESSIE PORTER welcome you to the "Pow-Wow" Trading Post, Yermo, 14 miles east of Barstow, Highway 91. Rocks! Rocks! Rocks! Rocks in the rough, slabbed, preforms and cabochons. Fluorescent and rare specimens. Caledonite, Linerite, Benitoite, Neptunite and many others. See your own cut. Gifts and Souvenirs.

KARAKULS—Producers of Persian Lamb fur are easy to raise, adaptable to any climate or altitude. For further information write Addis Kelley, 4637 E. 52nd Place, Maywood, California.

WHOLESALE LOTS, Cactus, Resurrection Plants, Boxed Cactus. Aztec Cactus Co., P.O. Box 833, Presidio, Texas.

COLOR SLIDES—Travel, Nature, Geology, etc. Free list (with sample 30c, three for dollar). Kelly D. Choda, Box 5, Los Alamos, New Mexico.

EARTHWORM BREEDING—Valuable bulletins on successful methods mailed free. Earthmaster Publications, Dept. 11, Sun Valley, California.

CASH PAID for old gold. Mail old jewelry, watch cases, optical scrap, dental gold—for prompt estimate to Kathryn A. Ross, Henry Field Jewelry Dept., Shandoah, Iowa.

PHOTOGRAPHS

PHOTOSTAMPS, dollar hundred, 1x1 1/2, person, products; send prints. Free Samples. Jason Bowen, Jonesboro, 271, Tennessee.

KODACHROMES ON APPROVAL. If you didn't get the pictures you wanted try ours. Keep only those you like, if any. Grand Canyon, Bryce, Yellowstone, Tuzigoot, Yosemite, Tetons, Wupatki, Rockies, Jasper, Rainier, California, Glacier, Arizona. Just name area desired and we will send selection. Douglas Whiteside, Yosemite, California.

GEOLOGIC COLOR SLIDES

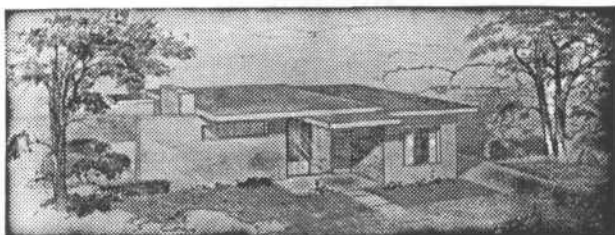


For study in class or home—Geologic interpretations of National scenic wonders in beautiful Natural Color! Send \$1 TODAY for Trial offer—3 MOUNTED 2" x 2" SLIDES postpaid. FREE 24-page catalog. Dept. E-5.

Heald-Robinson

112 E. Lemon
Monrovia, California

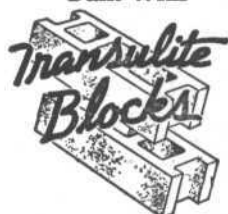
HERE'S MORE HOUSE ... FOR YOUR MONEY



HOMES of DISTINCTION

Built With

Call for Estimates—Plans Available



SYcamore 3-8133

Investigate now. Year 'round comfort, low heating costs. Cool in summer. Low cost maintenance. Build with "Precision Built" concrete, pumice and red cinder blocks. Desert cinder blocks for desert homes.

TRANSIT MIXED CONCRETE CO.

3464 E. Foothill Blvd., Pasadena 8, California

RYan 1-6329

ATlantic 2-5104

Painted Rock Dam Project . . .

PHOENIX—The Arizona senate has approved for passage a bill authorizing Yuma and Maricopa counties to cooperate with the federal government in building a \$25,000,000 flood control dam at Painted Rock on the Gila river in western Maricopa county. The federal government would pay all cost of the dam plus maintenance. Senator Joseph Mansfield said the dam would protect the Yuma and Wellton-Mohawk areas from flood damage, and the project would comply with the terms of the United States treaty with Mexico involving Colorado river water, and would eventually increase the state's share of the water. — *Yuma Daily Sun*.

. . .

Boothill Gets New Custodians . . .

TOMBSTONE—Boothill graveyard, famous point on highway U.S. 80, will be in the care of Mr. and Mrs. M. L. Rose. Boothill is the property of the city but certain concessions are offered for upkeep of the famous graveyard. The Roses plan to operate a souvenir and coffee shop. A small photo shop is to be added later. No admission is charged for visiting the historic burying ground. Mrs. Lela Nunnelley was former custodian. — *Tombstone Epitaph*.

. . .

CALIFORNIA

Sheep On the Wrong Range . . .

THOUSAND PALMS—The Desert's most beautiful carpet of spring flowers in years was in danger of becoming a trampled ruin—in the path of thousands of hungry sheep. Harry

Oliver at Fort Oliver first alerted officials following the influx of several thousand sheep by rail. Owner of the herd, J. B. Saldubehere of Mono Lake, said he had no idea he would meet with such vehement opposition from desert lovers, and was cooperative in agreeing to remove the destructive herds. The sheep which had already denuded large sections of the desert carpet of wild flowers were soon on their way to the Lucerne valley east of Victorville. The brief scare had the effect of calling attention to the dangers of permitting unrestricted grazing in the desert during the flowering season. — *Desert Barnacle*.

. . .

Calicos a National Monument? . . .

BARSTOW—Because the Calico mountains have as much or more scenic and historical value than many existing national monuments, Barstow has proposed that the Calicos be made a national monument. In reply to the proposal Newton B. Drury, director

UTAH PICTURE STONE Formed During Triassic Age



PAINTED BY NATURE

Small approx. sizes with hanger for wall pictures, postpaid:
4x5'.....\$1.75 Most have
5x8'.....2.60 rough sides
6x9'.....3.50 and top
Some extra choice 10c sq. in. including 2% tax.

DURABLE • UNIQUE

For fireplace veneer and hearths.
Write for prices and information.

UTAH SCENIC STONE CORP.

22 E. First North
ST. GEORGE, UTAH

The Williamsons . . . Navajo Rug Authorities

have moved from Lake Tahoe to Palm Village. We have a large stock of AUTHENTIC NAVAJO RUGS and INDIAN JEWELRY. We extend a most cordial invitation to our host of friends and patrons to visit our new store at Palm Village.

THE WILLIAMSONS

PALM DESERT, CALIFORNIA

P. O. BOX 64



28th Annual Inter-Tribal Indian Ceremonial

August 11 - 14, 1949

GALLUP, NEW MEXICO

"America's Greatest
Indian Presentation"

Write for Folder

M. L. WOODARD, Secretary

Inter-Tribal Indian Ceremonial

Gallup, New Mexico

BY BOAT

into the heart of
the Southwest's
most scenic can-
yon country with

Norman Nevills

A limited number of reservations are now being made for the 1949 Nevills expeditions down the San Juan and Colorado rivers—191 miles in seven days. Special-built river boats, skilled boatmen, good food and sleeping bags for all passengers.

Boats start from Mexican Hat, Utah, on the San Juan, and complete the trip at Lee's Ferry on the Colorado. Arrangements will be made to have your car driven from Mexican Hat to Lee's Ferry. Sidetrips include:

Crossing of the Fathers, Music Temple, Mystery, Twilight and Hidden Passage Canyons, Outlaw Cave, and the Famous Rainbow Bridge

For Schedules and Rates Write to . . .

NORMAN NEVILLS — — — — — BLUFF, UTAH

"... A river trip with Norman Nevills is more than a mere boat ride. It is a flight on a magic carpet of adventure into a canyon wilderness of indescribable beauty and grandeur."

—DESERT MAGAZINE

national park service, said, "The values which give distinction to an area and qualify it for national monument status vary. They may be scenic, scientific, historical, archeological, or a combination of these. The crux of the matter is national importance. . . . It appears that an area for local recreational use is contemplated. It is suggested that Barstow citizens seek a solution on a local level."—*Barstow Printer-Review*.

Montezuma Girls Summer Camp

In southeastern Arizona, with high, dry climate, excellent for girls with respiratory trouble. 35 summer campers. Horseback riding featured. June 30 through August 20. Write for folder.

NANCY NELMS, HEREFORD, ARIZONA

Date Growers to Organize . . .

INDIO—A program to create a profitable level of operation for Coachella valley's disjointed date marketing system has been planned by the Date Industry committee according to Maure Solt, manager of the Date Advisory board and secretary of the Date Industry committee. Before the plans can be made effective they must be approved by the growers producing 85 per cent of the date tonnage. One phase of the program would be to operate under a standardized trademark and package that would become as familiar to housewives as the Arabian "Dromedary Dates."—*Desert Barnacle*.

Wildflowers Lure Visitors . . .

PALM SPRINGS—The greatest single-day influx in the history of Palm Springs was recorded Sunday, March 20, when the combination of a perfect first day of spring, 14th annual golf tournament, a profusion of wildflowers and just plain lure of the desert, drew a crowd estimated variously from 40,000 to 100,000 persons. Highway 111 east of Palm Springs through Palm Desert to Indio where the flowers were in greatest profusion was black with cars. Visiting parties gathered in the blooms by the armful despite warnings of the law and pleas of desert residents.—*Desert Sun*.

Marking System Deficient . . .

SACRAMENTO—Legislation to remedy deficiencies in the present method of registering and marking California historical sites is vigorously advocated by civic agencies. Faults in the system could be corrected by adopting S.B. 1280, sponsored by Senator Arthur Breed, which establishes an official historical landmarks advisory committee and authorizes the state park commission to register approved landmarks and contract with public or private agencies for the erection of suitable markers for sites of statewide importance.—*Hemet News*.

Speed Plans for Land Acquisition . . .

SALTON SEA—Early action to speed plans for acquisition of land in the Salton Sea area for the proposed Salton Sea state park was expected as J. H. Snyder, in Washington on business for the Coachella Valley County Water district, was scheduled to see Congressman John Phillips to urge his support for a congressional measure permitting transfer of federal land in the area to the state. The proposed park is to be a memorial to General George S. Patton.

California's Wildlife Conservation board has budgeted \$140,000 for additional construction at the Crystal Lake hatchery, near Cassel—destined to become one of the largest fish "factories" in the world. With 24 ponds in operation, the trout hatchery now holds 245,700 fingerlings and 109,770 advanced fingerlings for planting in northern California streams and lakes.

ONLY ONE WORLD FAMOUS

Valerie Jean Date Shop

Our story of "QUALITY PRODUCTS ONLY" told and retold in largest periodicals all over the world. Send a trial order for THE DE LUXE ASSORTMENT of finest dates and desert delicacies.

1 pound delivered.....\$1.30 3 pounds delivered.....\$3.50

Order from VALERIE JEAN With Confidence

Write for Complete Folder

THERMAL, CALIFORNIA



\$300 to \$3,000 Income

BUY AN ACRE above the village and build your own desert home and poultry plant. Healthiest place for people and poultry—no fog, smog or smudge. All year dry climate, 3200 elevation. Pay as little as \$250 down, balance monthly (land only). Water, Electricity, Oiled Roads, wonderful views. Write for new "Eggs Folder" and maps.

BATTELLE

Box D.E. 105, LUCERNE VALLEY, CALIF.

NEVADA

Prehistoric Ruins Found . . .

LAS VEGAS—Cliff dwellings and signs of a large prehistoric culture have been found in the lower Gallinas canyon by Frank Wilson of Santa Fe and Robert Bennet of Las Vegas. The ruins may lead to important anthropological data. Dr. Helmut De Terra of the Viking Foundation, New York, expressed interest in the area last year, considering it the logical place to find some of the oldest ruins and evidence of Folsom and pre-Folsom Man. In time element the Folsom compares with the Stone Age of Europe. The area offers hundreds of sites for excavation.—*Gallup Independent*.

. . .

Ask Humboldt River Survey . . .

LOVELOCK—For two years Army Engineers have been making a survey to determine the feasibility of constructing three flood control dams and reservoirs in Elko county. The dams would be built on the Humboldt and its tributaries. Cost of construction has been estimated at \$10,000,000. The government has demanded that the water users show their interest in the dams and channel improvements by underwriting \$1,000,000 of the total cost. Before such a guarantee is

given, a hydrographic survey has been proposed. An appropriation for \$15,000 for this purpose is under consideration before the assembly of the Nevada state legislature. The bill is designed to plot the effects of the upstream construction upon the individual rights of 600 users of the stream system.—*Battle Mountain Scout*.

. . .

Debate Over Name Ends . . .

BEATTY—The controversy as to whether the given name of Beatty's founder was William or Martin has been decided to everyone's satisfaction. R. A. Gibson of Laguna Beach, California, who served as assistant to Beatty when the latter became the community's first postmaster in 1904, has announced that his full name was William Martin Beatty.—*Beatty Bulletin*.

. . .

With the passing of Otto Grimm March 2, Goldfield lost another of its oldest residents. Grimm was born in Indiana in 1859. He moved to New Mexico where he obtained a contract to haul all supplies for the Acheson, Topeka & Santa Fe railroad and the Denver & Rio Grande when those lines were being built. All shipments were by horse drawn vehicles, and at one

time Grimm owned thousands of horses. He became a friend of the outlaw Billy the Kid. Grimm moved to Goldfield in 1907 and was engaged in mining.

UTAH DREAM HOME

FOR SALE — Owner Transferred

Refer to July, 1943, Desert Magazine for article and pictures by Charles Kelly. Known as Pleasant Creek ranch, located 24 miles southeast of Torrey, Utah, in the heart of Capitol Reef National Monument, Wayne Wonderland, Wayne county, Utah,

400 deeded acres, about 100 tillable acres. About 60 acres now in alfalfa and grain. Excellent water rights from trout stream at no cost. 640 acres leased for grazing and public domain rights. All farm land fenced.

Unique modern home and semi-modern foreman's home. Allis-Chalmers tractor with complete set implements including combine.

Excellent guest ranch site. Will produce most of food for operation. In an area of great scenic beauty now being opened to the public. Airport site. Oil and Mineral possibilities.

TOTAL BARGAIN PRICE \$32,000

Will consider half cash. See or write

L. J. KNEE, Owner

Pleasant Creek Ranch, TORREY, UTAH

ANNOUNCING -- The New MINERAL BOX of the MONTH Club with This Amazing Introductory Offer ---



The Alphotomic Light

To get started on the MINERAL BOX of the MONTH CLUB, you receive the new ALPHATOMIC Ultraviolet LIGHT (regular \$9.95 value) plus 10 outstanding FLUORESCENT Minerals (regular \$3.00 value) for only \$7.50 for both LIGHT and MINERALS. This offer cannot be duplicated elsewhere for less than \$20.00.

You then receive in order one box of minerals per month from the list below. Boxes come to you at \$3.00 each plus postage. With each box, as a Club bonus, you receive a new Fluorescent Mineral to add to your Fluorescent box. Membership in the Club may be concluded at any time by sending in written notice.

As a Club member you save \$13.45 over regular retail values! Each collection (except No. 1) contains 20 selected minerals, size 1½ inch or more, plus technical data carefully packed in reinforced box with wooden partitions.

SPECIAL OFFER: In return for complete prepayment of \$40.50 for the entire collection we will send you **ABSOLUTELY FREE** a real collector's item — 3 outstanding specimens of radioactive minerals!

"MINERAL BOX OF THE MONTH" CLUB COLLECTIONS

Name	Retail Value	Special Club Price
Alphotomic Ultraviolet Light.....	\$9.95	Both for
1. Fluorescent Minerals and Rocks (10 specimens).....	3.00	Only.....\$7.50
2. Feldspars and the Pegmatite Minerals.....	4.00	3.00
3. Silica and the Quartz Minerals.....	4.00	3.00
4. Igneous and Metamorphic Minerals.....	3.00	3.00
5. Sedimentary Rocks—Organic and Inorganic.....	3.00	3.00
6. The Creation of Soil.....	3.00	3.00
7. Ores of the Industries.....	5.00	3.00
8. Building Materials and Rocks.....	3.00	3.00
9. Insulating Materials and Rocks.....	3.00	3.00
10. Fossils and Organic Substances.....	4.00	3.00
11. Hardness and Streak (with Streak Plate).....	3.00	3.00
12. Luster and Cleavage of Rocks and Minerals.....	3.00	3.00
plus 10 Fluorescent Specimens—one with box—free as member of Club.....	3.00	
(Add 25c postage per collection).....	\$53.95	\$40.50

MAIL THIS COUPON TODAY!

ATTENTION

NON-MEMBERS AND PROSPECTORS:

Any of above minerals may be ordered at regular retail price. You may order The Prospector for \$4.00. Famous collection of 50 specimens for prospectors, geologists, mineralogists.

GENTLEMEN:

- () Please enroll me immediately in "Mineral Box of the Month" Club.
 () Check or money order for \$7.50 enclosed. Send rest of boxes C.O.D.
 () \$40.50 enclosed. Send complete collection now ()
 One at a time ()
 () Send me at regular retail price collections checked:
 () 1 () 2 () 3 () 4 () 5 () 6 () 7
 () 8 () 9 () 10 () 11 () 12 () Prospector

Name.....

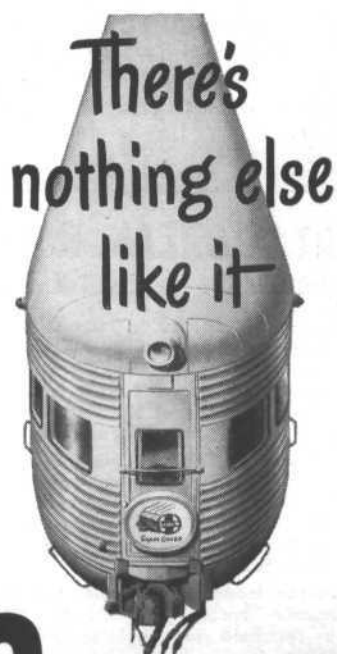
Address.....

Brown's Minerals Division

ATOMIC RESEARCH CORPORATION

Peterson Field

Colorado Springs, Colorado



Super Chief

daily California
-Chicago

Wait till you ride it! You'll agree—there's nothing else like Santa Fe's Super Chief.

It's the *only* all-private-room streamliner between Los Angeles and Chicago.

Smooth rolling Diesels plus sound-deadening insulation give you a quieter ride. Three lounge cars, valet, barber, maid service. Famous Fred Harvey food in a beautiful new diner. 39¾ hours to Chicago.

The Super Chief (now in daily service) is the flag-bearer of Santa Fe's fine fleet of trains.

C. C. Thompson, Passenger Traffic Mgr.
Los Angeles 14



Turbine Runner Has Long Ride . . .

BOULDER CITY—One month after leaving Eddystone, Pa., the first turbine runner for the Davis Dam power plant came to rest in the Bureau of Reclamation's warehouse yard at Hoover Dam. Suspended between two railroad flat cars, the runner—17 feet in diameter, weighing 75 tons and nine feet high, traveled at the rate of 15 miles an hour. In order to bypass tunnels and other obstructions it was necessary to route a 3000-mile round-about trip. A 100-ton capacity highway trailer will take the wheel to Davis Dam when the plant is ready for its installation. Four other runners will be shipped in the next few months. Davis Dam and power plant are under construction on the Colorado river 67 miles below Hoover Dam.

Good Fishing at Lake Mead . . .

LAS VEGAS—While most of the country's fishing sites are snowed in or closed part of the year, Lake Mead, stretching 115 miles from Hoover dam to Grand Canyon, is open day and night the year around. Since the reservoir started filling in 1935, fishermen have come to take daily limits of 10 bass, some weighing 12 to 15 pounds; 25 catfish, and 20 crappie, perch and blue gill.—*Caliente Herald*.

Recluse's Shack Yields Gems . . .

LAS VEGAS—Treasure seekers were scouring the desert sands around a tiny shack five miles east of Las Vegas, when \$10,000 in jewels were found after the death of a woman recluse. A neighbor came across the jewelry while gathering the meager ef-

fects of Madelaine Iona Sullivan. Private papers revealed that Miss Sullivan went on the stage in 1911, and was billed at theaters at \$100 a day. In 1922 she married a Montana rancher and travelled extensively in latter years. She had lived in the shack without electricity or plumbing for one year. Reasons for this choice of life remain secret.—*Salt Lake Tribune*.

• • •

Bass are to be seined from Manzanita lake, University of Nevada campus, for delivery to Stillwater Point reservoir and Indian Lakes. Seining by Frank Grasteit under arrangement with the state fish and game commission was announced at a meeting of Churchill fish and game association.

• • •

NEW MEXICO

Carlsbad Caverns To Be Studied . . .

CARLSBAD—The reef limestones containing Carlsbad Caverns are to be studied this summer to find out how they were formed. Dana P. Kelley, public relations director for the American Museum of Natural History, said geologists know the limestones as petroleum reservoirs underlying the southeastern New Mexico and west Texas oil fields. The museum will conduct the project with Columbia uni-



Humming Bird Feeders
that feed automatically.
Shipped anywhere in U.S.A.
for \$4.95.

THE WISHING WELL
GIFT SHOP
2969 So. Coast Blvd.
Laguna Beach, California

PERSONALIZED AIR TOURS

to any or all the following
scenic wonders:



Passengers may book
flights from any of the
following points:

Monument Valley, Utah
Canyon de Chelly, Arizona
Marble Canyon, Arizona
Grand Canyon, Arizona

Chaco Canyon, New Mexico
World's Largest Cliff Dwelling
Zuni Indian Pueblo, New Mexico
Inscription Rock, New Mexico
Moro National Monument

Flights pass over Rainbow Bridge, Utah; Painted Desert, Arizona, and Petrified Forest, Arizona

All Flights Arranged for the Convenience of Our Passengers

Write for Rates and Free Folder

Thunderbird Aviation Co.

Municipal Airport

Gallup, New Mexico

Special courtesies to amateur and professional photographers

versity. Dr. Norman D. Newell, Columbia professor of geology and museum curator, will direct the work.—*Gallup Independent*.

Indian Center Project . . .

GALLUP—The Gallup Chamber of Commerce has started negotiations on suitable property for erection of a \$100,000 Indian center and clinic. The Navajo service will operate the clinic, providing nursing service and doctor. Rest and recreation facilities are to be let out for operation under contract. Lucy Adams, who heads the Navajo off-reservation employment service, stressed the need for the center in handling the thousands of Indians cleared through Gallup each year for off reservations jobs.—*Gallup Independent*.

Ask Separate Indian Bureau . . .

A memorial calling on the U.S. Congress to enact legislation setting up a United Indian Pueblo administration separate and apart from the present Bureau of Indian affairs is now before the state senate for approval. The memorial states that the tribes of Pueblo Indians in the state are the only ones of their kind in the nation and should be dealt with separately.—*El Crepusculo*.

Indians Need Recreation Center . . .

GALLUP—Hubbell Parker, Indian labor recruiter in Gallup for the Santa Fe railroad, is in favor of setting up an Indian Center where all Indians can go on their visits to town and be free from the influence of bootleggers and other lawless elements. "The Indian liquor problem does not center on bootleggers," he said, "there are operators who will give the Indians free drinks and make their profit on the jewelry and cash stolen after the Indian passes out." Parker cited several instances where Indians were beaten and robbed without a friendship drink offer. "It isn't just an occasional happening, and a good police department can do a lot to stop it," he declared.—*Gallup Independent*.

"EVERYTHING FOR THE HIKER"

**SLEEPING BAGS
AIR MATTRESSES
SMALL TENTS**

and many other items

VAN DEGRIFT'S HIKE HUT
717 West Seventh Street
LOS ANGELES 14, CALIFORNIA

Who Owns Kit Carson Cemetery? . .

TAOS—A bill making neglected Kit Carson cemetery a State Memorial park was unanimously passed by the state legislature. The bill includes a \$10,000 appropriation for purchase, buildings and other improvements. The embarrassing consequence is that nobody in Taos seems to know who owns the cemetery!—*El Crepusculo*.

New Office for Indian Affairs . . .

SANTA FE—Creation of the office of New Mexico Indian Commissioner is to be asked of the state legislature. Senator Joe A. Montoya announced he would submit a substitute bill which levies a 20 per cent tax on factory-made Indian articles, and would create a wage and hour law for Indian jewelers and others. The Indian commissioner would be appointed by the governor and charged with enforcing regulations.—*Gallup Independent*.

'Calico Days' at Yermo . . .

The desert community of Yermo, near Barstow, California, is getting into costume and into the fashions and spirit of the '80s in anticipation of the Calico Days celebration scheduled May 20, 21 and 22 at the Calico Guest ranch in Yermo. A host of visitors will visit the area for the celebration, which includes horse show and rodeo.

SAN JUAN RIVER BOAT TRIPS

Bluff or Mexican Hat, Utah, to Lee's Ferry
Eight-Day Trip Amid the Scenic Canyons
of Southern Utah

Visit Rainbow Bridge
and Other Points of Interest in This
Magnificent Canyon Country

Write for Rates and Full Information

CHARLES LARABEE
Balboa Island, California



Enjoy

at Palm Village

NEAR PALM SPRINGS, CALIF.

LIVE

A LIFE OF CONSTANT ENJOYMENT AT PALM VILLAGE IN THE SUN DRENCHED, UNSPOILED DESERT.

- SWIM** in a glamorous pool.
- PLAY** tennis, badminton, golf.
- HORSEBACK** rides up the trails of the palm studded canyons.
- HIKES** to the Cathedral-like date gardens.
- TRIPS** to the snow capped mountains in 30 minutes.
- PICNIC** on the shores of the Salton Sea 40 miles away.
- ENJOY** night club life at Palm Springs.
- SHOP** at Palm Village shops.

BUSINESS OPPORTUNITIES AWAIT YOU HERE

WRITE for descriptive circular picturing \$1,000,000 improvements.

LOTS START AT \$795.

PALM VILLAGE Desert Homes

P. O. BOX DD, PALM SPRINGS, CALIFORNIA

Anthropology Courses at UNM . . .

ALBUQUERQUE—Dr. Paul Reiter, director of field work, has announced that four field sessions in anthropology will be offered during the summer at the University of New Mexico. Practical work will involve surveying and mapping of ruins, preparation of detail and the keeping of archaeological records. In the laboratory, students will study the preservation

and classification of excavated material and prehistoric pottery.—*Gallup Independent*.

UTAH

Canyon Pictograph Destroyed . . .

MOAB—Destruction of the famed mastodon pictograph on the Colorado river canyon wall four miles below Moab was the result of a natural rock-slide, according to Sheriff J. B. Skewes. Investigations were launched by officials of bureau of land management and state department of publicity and industrial development when possible vandalism was suspected due to an earlier report from Harry Reed, Moab photographer, and Ralph A. Badger. The two men had gone to the cliff to photograph the carving and found the drawing had been obliterated.—*Times Independent*.

Burial Ground Is Sacred . . .

BLANDING—There is now a complete record of the graves in Blanding cemetery due to the efforts of Mrs. Lucretia L. Ranney. The Mormon Prophet Joseph Smith said, "The place where a man is buried is sacred to me," and Mrs. Ranney claims the same feeling. At the beginning of her project a third of the 330 graves were unidentified. Mrs. Ranney spent six months obtaining information through letters and interviews. Blanding was settled in 1905 and the records are complete to January 1949.—*San Juan Record*.

Utahns Await Giant Explosion . . .

CASTLE DALE — Utahns have something to look forward to—the explosion of 320,000 pounds of TNT. This charge is said to equal one-fifth of the rated power of the atomic bomb used in Japan. The explosion is scheduled to take place this summer near Castle Dale, Emery county, when U.S. army engineers will start a series of explosions in an attempt to determine how far to dig and how to make subterranean structures that would be safe from atomic bomb explosions.—*Times Independent*.

Memorial Case Refused . . .

SALT LAKE CITY—The supreme court refused to review a private suit contesting a Utah state authorization for construction of a pioneer memorial building in Salt Lake City. Suit was brought by James Rolla Thomas, who objected to an arrangement between the state and the Daughters of the Utah Pioneers, under which the organization contributed \$75,000 toward the construction. The state appropriated \$225,000 for the building. Thomas contended that a franchise to the historical society denied other Utah citizens "equal protection of the laws."—*Salt Lake Tribune*.

Air Seeding to Reclaim Soil . . .

SKULL VALLEY—An aerial pellet reseeding grass project is being carried out on 15,000 acres in Skull valley, 60 miles southwest of Salt Lake City. Thirty years ago Dr. Lytle S. Adams began to develop this pellet reseeding when he discovered that a certain cactus grew abundantly because the plant's seed was spread and germinated in rabbit droppings. Adams' pellet is made of dry, compressed loam, clay and fertilizer, which weights and protects the five to eight seeds each contains. The pellets are sown nine to each square yard of ground, and the capsules are heavy enough that they

GOLDEN MESA DUDE RANCH

SUNNY SOUTHERN CALIFORNIA
Beautiful Mojave desert location.
75 miles north of L. A. Modern
accommodations and excellent
food. Famous for spring wild
flowers. Finest horseback riding
in Antelope Valley. Write for
folder and rates.
WILSONA ROUTE, BOX 167
LANCASTER, CALIFORNIA



YOU WILL BE PLEASED

With the service and quality of goods
you will receive by ordering from the
Heart of the Navajo Country.

Navajo Rugs and Saddle Blankets
Genuine Handmade Silver Jewelry
Set With Turquoise
Petrified Wood and Agate Settings—
Made by Indians

Write Me for Prices and Descriptions

E. P. WOODS

Navajo Blankets - Indian Handicraft
Wholesale Distributor
FARMINGTON, NEW MEXICO

Rare Cactus Candy

made from the heart of the Visnaga
cactus of our Southwestern desert—

gift boxed in quaint
Mexican casseroles
at \$1.95 \$2.95 \$5.95
Shipped prepaid.

the Sweet mart

615 B san diego, california



COUNTY MAPS

For Schools, Hunters, Fishermen, Public Offices, and Travelers

CALIF.: with Twnshp., Rng., Sec., Mines, Roads, Trails, Streams, Lakes, R. R., Schools,
Rngr. Sta., Elev., Nat. Forest, Pwr. Lines, Canals, Boundaries, etc.

Sizes: 20x30 to 73x100 inches

Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado,
Glenn, Kings, Lake, Marin, Mariposa, Merced, Napa, Nevada, Orange, Sacramento, San
Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Sierra, Solano,
Sonoma, Stanislaus, Sutter, Ventura, Yolo, Yuba—each \$1.

Tuolumne, Santa Barbara, Plumas, Pla-
cer, Modoc, Madera—\$1.50.

Tulare, Tehama, Imperial—each \$2.
San Diego, Mendocino, Humboldt—
\$2.50.

Trinity, Shasta, Mono, San Luis Obispo,
Monterey, Lassen—\$3.

Fresno, Kern, Riverside—\$2.50 - \$5.

Los Angeles—\$1 and \$3.

Siskiyou—\$2 and \$4.

Inyo County, \$15; E or W ½ \$7.50; San
Bernardino, 73x110, \$15; No. or So. ½
\$7.50; NW., SW., NE., or SE ¼, \$3.75.

Also Oregon, Idaho and Washington County Maps

WORLD'S MINERALS

2417 San Pablo Avenue — TEmplebar 2-3870
OAKLAND 12, CALIFORNIA

won't be scattered by the wind. They become adhesive when damp and soften, allowing the seeds to germinate in an average yearly rainfall of about nine inches. The Skull valley project has been organized by the U.S. bureau of land management. Adams estimates that 1,000 acres are seeded a day with present equipment. — *Tucson Daily Citizen*.

Cougar Kills 18 Sheep . . .

DELTA—A cougar got into the sheep at Welby Agaard's camp and killed 18 before he in turn was killed. Agaard's camp is 55 miles west of Delta, through Marjum Pass in Tule valley. A cougar had never been seen in that area. No doubt the long, hard winter had forced him from his usual hunting areas. He measured seven feet, ten inches from tip to tip but was in poor condition. Agaard judged he weighed less than 100 pounds.—*Millard County Chronicle*.

The Mail Goes Through . . .

SALT LAKE CITY—"Mr. and Mrs. Hungry Bird, Rural Delivery 4, Salt Lake City." Two packages of mixed grains so addressed lost no time in reaching the Bird family and providing a welcome meal. The packages were sent by children in the Henry Clay school, Arlington, Va., who had read about Utah's cold, snowy winter and its threat to the "feathered friends." The packages were delivered to Mrs. R. B. Harkness, who was known to the postoffice to be a protector of bird life.—*Salt Lake Tribune*.

Dr. Eugene Callaghan has been appointed director of the New Mexico Bureau of Mines and Mineral Resources division, the School of Mines announced. Callaghan has had geological experience in 47 states and in foreign countries. He has also studied the state's potash resources.

Bates Wilson, custodian at El Morro national monument, has been transferred to Arches national monument at Moab. Wilson succeeds Russ Mahon at Arches.

YOU CAN VISIT PALM SPRINGS

—through the pages of *The Villager*. Pictures of life in the famous desert resort—informative articles.



Sample copy, 45c

A Year, \$3.50

VILLAGER MAGAZINE
465 No. Palm Canyon
Palm Springs, Calif.



"Paw sez it protects better
an' lasts longer"

...THAT'S NEW Mobiloil, NOW AT ALL Mobilgas STATIONS

Yessiree, you'll get longer engine life and fewer repair bills, too, with New Mobiloil because of:

1. Vastly improved refining processes that meet the toughest lubrication problems.
2. Powerful detergent additives that help keep the engine clean.
3. Anti-corrosion compounds that give added protection to precious bearings and cylinders.

Your Mobilgas Dealer will gladly check your oil... keep it at "safe driving level"... change it on schedule.

Get New Mobiloil at your
**Independent
Mobilgas Dealer**

Copyright 1949, GENERAL PETROLEUM CORPORATION
— A builder in the West since 1898



MINES AND MINING . . .

Monticello, Utah . . .

Current prices offered by the Atomic Energy commission are not high enough to pay the costs of production at many of the properties where uranium ores are mined, according to members of the Uranium-Vanadium Co-operative Producers' association. P. C. Leahy, manager of the Grand Junction office of the AEC, told the association that his agency is ready to finance producers for economical production where it appears their claims justify it. —*Battle Mountain Scout*.

Salt Lake City, Utah . . .

Prices of iron at the Iron-ton, Utah county, blast furnace of the Kaiser-Frazer corporation have been announced. Basic pig is to be sold at \$47 a ton, and foundry iron at \$47.50. It was stated that the output of the Iron-ton furnace no longer is supplying the automotive factory at Willow Run, Michigan, but is being diverted to the western basic and foundry market. —*Salt Lake Tribune*.

Garfield, Utah . . .

After being slowed by bad weather this past winter, construction at the new \$16,000,000 electrolytic copper refinery of the Kennecott Copper company has stepped up its tempo. Initial capacity of the refinery will be 12,000 tons of copper per month, cast in the form of wire bars used in manufacture of copper wire. —*Salt Lake Tribune*.

Tonopah, Nevada . . .

Within a two-week period 120 tons of lead-silver ore carrying values up to \$80 per ton were shipped from the Wells-Fabbi Mary Louise property at Lone Mountain, Frank Christopher and Carl House, who hold the lease, reported. Bulk of the ore at present comes from sinking operations, the large vein is maintaining good width. —*Tonopah Times-Bonanza*.

Park City, Utah . . .

Exploration below the 1500 level resulted in an important ore find for the Park Utah Consolidated Mines company at its Ontario mine, Park City, Utah. Miners reportedly cut into ore running approximately 38% lead, 16% zinc, 12 ounces silver to the ton, according to early assays. P. H. Hunt, mine manager, said the strike on the 1500 level was in the form of fissured mineralization running into what he believes are sizable beds. —*Salt Lake Tribune*.

Mesa, Arizona . . .

Strip mining at the rate of 300 tons a day is predicted soon at the Goldfield mine northeast of Mesa at the western base of Superstition mountain. The surface mining is expected to be easy, little overburden will have to be taken off as gold-bearing conglomerate and brecciated granite are exposed. Eighty claims embracing the famous old gold property and a surrounding mineralized area have been bought from E. H. and L. D. Shumway, Phoenix, by the recently organized Goldfield Mines syndicate. Active principals are Alfred Strong Lewis and Thomas H. Russell.

It is estimated mining cost will not be more than \$3 a ton, material will average \$9 in recoverable gold. Much runs higher. —*Humboldt Star*.

Washington, D. C. . . .

Gold miners are calling on the lawmakers for help.

A bill has been introduced in the U. S. Senate by Senator Pat McCarran of Nevada which will, if enacted, permit gold mine owners and operators to file claims for financial losses incurred as a result of war-time closing of their properties or curtailment of operations. Congress is also being asked to repeal all laws inhibiting "free trade in gold in the open market."

Salome, Arizona . . .

Ores bearing gallium, said to be the only metal other than mercury that is liquid at low temperatures, have been found on the Rio del Monte mines four and a half miles south of Salome in northern Yuma county. Gallium differs from mercury in that it has a high boiling point in addition to its low freezing point. These properties make it useful in certain military devices, which will be designed to utilize gallium if sufficient supply can be assured. Price of gallium during World War II was about \$3 a gallon. O. K. Gilliam is president of Rio del Monte Mines, Inc. —*Yuma Daily Sun*.

Goldfield, Nevada . . .

A pocket of rich ore which "preliminary estimates" indicate will go as high as \$3000 in spots, which shows free gold and should average about \$100 a ton, has been opened by the Red Hill Florence Mining company during exploratory operations in the Whiterock district. The firm has been raising on a narrow stringer from the so-called Whiterock level, the stringer suddenly broadened to 18 inches. —*Goldfield News*.

Death Valley, California . . .

A new district on the western edge of Death Valley, just north of highway 190 which leads to Lone Pine, may come rapidly to public attention if it lives up to what is promised by preliminary development of lead-gold property. Prospecting and development of the property has been undertaken by the Gold Hill Dredging company, San Francisco, after extensive engineering and assay work. The mine lies at about 7000 feet elevation a dozen miles northwest of Emigrant Ranger station, in an unnamed canyon. Company officials visiting the mine recently had to go in by horse. J. J. Coney is managing director of the company, C. J. Schifferle is company engineer. In the capacity of observer went Spangler Ricker, chief of the U. S. bureau of mines in San Francisco. The new mine will be called the Kerdell Lead mine. "The undertaking is still in a preliminary state," emphasizes Engineer Schifferle, "this is purely a prospect—a promising one." —*Inyo Independent*.

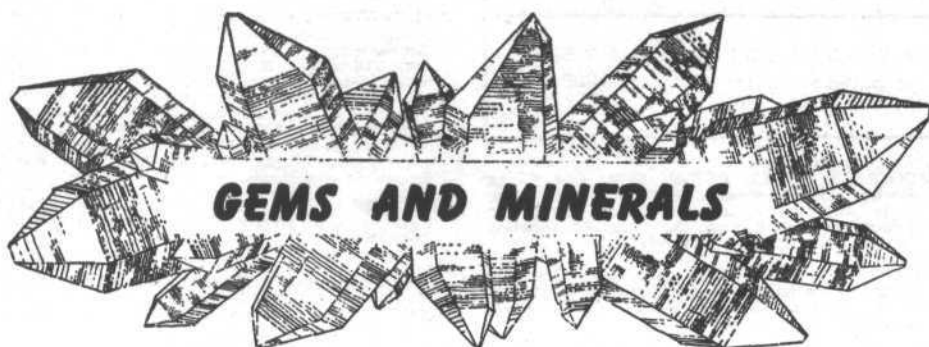
Reports persist of reopening of gold mining activity in the San Diego county mountain community of Julian, California. The historic Owens mine, opened in the 1870's and abandoned half a century ago, is to be reopened by the Julian Mining company, according to Secretary Jack George. The company has been sinking a new shaft, it is claimed. Ore to be worked assays approximately \$60 per ton, George reports. —*Indio Date Palm*.

Establishment of a rare and precious metals experiment station in Reno, Nevada, is authorized in a senate bill introduced by Senator Pat McCarran.

ANSWERS TO DESERT QUIZ

Questions Are on Page 18.

- 1—In the sun.
- 2—Death Valley.
- 3—Prescott, Arizona.
- 4—Corn.
- 5—Desert tortoise eggs are buried in the sand by the mother, and hatched there.
- 6—Ben Hur, written by Lew Wallace.
- 7—White.
- 8—A devil or evil spirit.
- 9—Quartz and feldspar.
- 10—Utah.
- 11—Tucson.
- 12—Lieut. Beale.
- 13—Apache trail.
- 14—Bandelier national monument.
- 15—Tombstone, Arizona.
- 16—First photographic expedition through Grand Canyon in 1911.
- 17—Virginia City, Nevada.
- 18—Albuquerque.
- 19—Mining.
- 20—Bisbee, Arizona.



SACRAMENTO MINERAL SOCIETY CELEBRATES ANNIVERSARY

Sacramento Mineral society held its anniversary banquet March 5 in the Coca Cola club rooms. Decorations and favors carried out the California centennial theme. Old wagon wheels leaning against the walls; bleached animal skulls and a large gold pan hung on the wall behind the honor table; gold pans complete with pyrites, pick and shovel at each place on the tables; small and large covered wagons, added to the '49er atmosphere. Dr. Vincent P. Gianella briefly discussed the recent earthquakes recorded in the Nevada-California area, and Francis J. Sperisen, featured speaker, gave an illustrated talk on "Inclusions in Synthetic Gems." Mineral specimens and cabochons of polished material were awarded in a series of attendance prizes.

COLORADO MINERAL SOCIETY TESTS RADIOACTIVE MINERALS

"Testing Radioactive Minerals in the Field and Laboratory" was discussed by Earnest Parshall at the March meeting of the Colorado Mineral society. The Geologic division of the United States geological survey furnished equipment and a collection of uranium ores. Various types of portable and stationary Geiger counters, a cathode ray oscillograph, and suitable amplifiers were shown, and members took part in the demonstration. An indoor field hunt for radioactive minerals was a special feature of the evening.

SACRAMENTO IN '49 FOR BIG MINERAL CONVENTION

Sacramento is the magnet that will draw thousands to the combined conventions of the American and California Federations of Mineralogical societies to be held June 24-26. A free swapping area is being planned. Western dress will be in order—particularly '49er garb, as the theme is the gold discovery centennial. Many societies and clubs are planning to travel to the convention by caravan.

GEM AND MINERAL UNIT FORMED IN BRAWLEY

Rev. W. A. Ross of Brawley was named president of the Brawley Gem and Mineral society at an organization meeting held March 18 at Brawley high school. More than 75 residents of the Northend and some from as far away as Salinas attended. With Roy Rand presiding as chairman, these officers were chosen: Morgan Short, vice president; Chrystal Johnson, secretary-treasurer; Roy Rand, field trip director. Reverend Ross, former president of the San Diego Lapidary society, outlined purposes of the group and talks were made by Percy E. Palmer and Morgan Short. An initial field trip to Coon Hollow was planned for the following Sunday.

CLASSES IN LAPIDARY WORK ARE GROWING IN POPULARITY

Coachella Valley Mineral society in cooperation with the Coachella Valley union high school, Indio, California, were instrumental in securing the necessary machinery for adult night classes in lapidary work last year. The increase in registration this year made two classes necessary, one for beginners and one for advanced pupils. The class is called "Rockology," and consists of one hour of geology and two hours of lapidary work. By popular demand two classes in jewelry making have been added.

CHOICE CABOCHON MATERIAL

Fine crystallized minerals.
Mineral light and fluorescent minerals.

MINERALS UNLIMITED

1724 University Ave., Berkeley 3, Calif.
"Selections personal as your own"

Silversmith - Stones Cut and Polished
Custom Made Mountings

POP MENARD'S HOBBY SHOP

Hobby Supplies - Scale Models
Moss Agate and Opal Collection on Display

For Repairs Phone 6423

378 S. Indian Ave. Palm Springs, Calif.
Visitors Welcome

Fire Opal - Mexico

10 small pieces—average 1/2"-3/4".....\$1.00
5 larger—average 3/4"-1".....1.00
6 still larger—1"-2" or over.....2.00
1 small vial clear fire opal.....1.50
50 rough mixed Mexican Opals, including honey, cherry, etc., average 1".....1.50

ALL 5 LOTS POSTPAID—\$6.00

Although these are sold chiefly as cabinet specimens and have plenty of fire, many of them will work up into new cabochons.

Money Cheerfully Refunded if Not Entirely Satisfactory

Polished Mexican Opals and other gem stone cabochons on approval to responsible persons.

DR. RALPH E. MUELLER

3701 Valentine Road Kansas City 2, Mo.

SPECIAL INTRODUCTORY OFFER

Complete 18" Sterling Silver Neckchains.....\$2.95 per dozen
Heavier Weight Chains at.....\$3.95 per dozen

Add 20% Federal Tax. Residents of California add 2 1/2% California Sales Tax, in addition to Federal Tax.

Grieger's "Encyclopedia and Super-Catalog of the Lapidary and Jewelry Arts." Describes and illustrates everything you will need for your hobby or for your business.

Read what purchasers of this new book are saying:

"I would still buy it at \$3.00 to \$5.00 as it contains as much, if not more meaty information for the lapidary and jeweler than any of the books on the market selling in that range."

"It is the only satisfactory catalog of lapidary supplies and materials that I have ever seen. It is superbly illustrated and beautifully printed."

Send \$1.00 for this 160-page bound book 9x12 inches in size. It is sold for only a portion of its actual cost. May be returned for full cash refund if not satisfactory.

Grieger's

1633 EAST WALNUT STREET
PASADENA 4, CALIFORNIA.
PHONE SY6-6423

OPEN ON FRIDAY AND SATURDAY ONLY 8:30AM-5:30PM.
MONDAY THRU THURSDAY OPEN BY APPOINTMENT ONLY

Covington DIAMOND BLADES

"Treat yourself to the best"



	Heavy-Duty	Super-	Standard
	Super-Chgd.	Charge	Charge
6"	\$ 8.70	\$ 7.70	\$ 6.75
8"	12.75	9.90	8.95
10"	15.75	12.95	11.95
12"	21.80	18.95	15.75
14"	32.30	24.95	21.85
16"	36.40	27.85	24.75
20"	66.30	44.20	33.95
24"	79.30	55.90	43.75
30"	127.25	106.95	Arbor
36"	192.20	159.95	Size ?

F.O.B. Redlands, Tax in Calif.

Send 3c stamp for Lapidary Catalogue.

COVINGTON

LAPIDARY ENG.,
REDLANDS, CALIF.

GEM MART

ADVERTISING RATE
8c a Word . . . Minimum \$1.00

GOOD CUTTING MATERIAL—Agates, Jasper, Agatized Wood, etc. 5 lbs. \$3.50; 10 sq. in. \$2.00. Larger amounts at reduced rates. Nevada Turquoise, good color, 20 cents carat up. Rough Turquoise to cut, \$1.50 per oz. and up. Cutting, polishing and silver work done. Free list cutting materials, minerals, specimens and supplies of all kinds. John L. James, Box 379, Battle Mountain, Nevada.

MINERAL SETS—24 Colorful Minerals (identified) in 1x1 compartments—Postage paid, \$3.50. Prospector's Set of 50 Minerals (identified) in 1x1 compartments in cloth reinforced sturdy cartons. Postage paid \$5.75. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

ORANGE COAST GEM CRAFTS: Lapidary equipment, supplies, silver, findings and tools. Free price list of cutting material upon request. 1106 Coast Highway, Corona Del Mar, California.

MIXED SLABS: Agate, Jasper and other material, \$3.50 lb. in rough. Mixed sample \$1.00 lb. Ira S. Cornwell, Pima, Arizona.

WHEN YOU TRAVEL Sixty-Six Highway, stop at Boodle's place, one mile west of Galena, Kansas. Thousands of fine minerals, Indian relics. Dealers Welcome. No mail orders, please. Boodle Lane, Box 331, Galena, Kansas.

MINERAL SPECIMENS, slabs or material by the pound for cutting and polishing, RX Units, Felker Di-Met and Carborundum Saw Blades, Carborundum wheels Cerium Oxide. Mountings. Approval selection sent upon request. You are welcome. A. L. Jarvis, Route 2, Box 350, Watsonville, California, on Salinas Highway.

AGATE FOR SALE—We have Red and Black Plume, Blue and Pink Banded, and many kinds of Moss Agates. All at our ranch at Alpine, Texas, or write J. A. Anderson, Box 182, Alpine, Texas.

BEAUTIFUL AUSTRALIAN Opal Cabs, 10x8—\$3.00 to \$7.20. 12x10—\$4.80 to \$9.00. Opal rough for cutting \$1.20 and \$2.00. Ace Lapidary, Box 67, Jamaica, New York.

BRAZILIAN AGATE, Specimen pieces, also good for coloring, \$1.00 a pound. Pieces run from one to ten pounds each. Black Onyx Blanks, 16x12 and 14x12 size—\$2.50 dozen. Mail orders filled promptly. JUCHEM BROTHERS, 315 W. Fifth St., Los Angeles 13, California.

OREGON PLUME AGATE, from noted Central Oregon gem fields. Finest quality plumes, \$1.50 sq. in. Assorted, vari-colored types, \$1.00 sq. in.; cabochon sized slabs, 50c each. Small rough chunks, \$5.00 lb. Fair warning folks: this Plume is in strong demand and is going, going—Choicest Red Moss Agate \$3.00 lb. Other gemmy types of Moss \$1.25 lb. From Plume vein, mixed moss and plume, vari-colored, 2 lbs. \$3.00. Include postage on rough Agate, please. Satisfaction guaranteed. C. G. Springer, 862 Roosevelt Ave., Bend, Oregon.

FIRE OPAL—We are now specializing in all grades of Australian cutting fire opal. We stock this lovely opal in all price ranges. Also cutting material and specimens. No mail orders. West Coast Mineral Co., 1400 Hacienda Blvd. (State Highway 39), La Habra Heights, California.

MINERALS, GEMS, COINS, Bills, Old Glass, Books, Stamps, Fossils, Buttons, Dolls, Weapons Miniatures, Indian Silver Rings and Bracelets. Also Mexico. Catalogue 5c. Cowboy Lemley, Las Cruces, New Mexico.

BEAUTIFUL ARIZONA AGATES. Polished samples and listings \$2.00. Unpolished samples \$1.00. Arizona Agate Mines, Cave Creek, Arizona.

COAL! COAL! COAL! Here it is! Your opportunity to get that long sought for Missing Link in your collection. Approximately one pound (½ lb. Anthracite—hard coal and ½ lb. Bituminous—soft coal). Packed and shipped \$1.00 plus postage. Five pounds \$3.00 plus postage. Be the first. Address Bob and Chuck, P.O. Box 6572, Chicago, Illinois.

COLORFUL AGATES and Woods from Arizona, Utah, New Mexico. Black Wood, Colored Wood and Picture Wood. Utah Pigeon Blood Agate, Golden Moss, Red Moss, Banded Agates in many colors. Jet Black Agate, gem grade, Dinosaur Bone. The best grade gem Chrysocolla and solid Malachite. Ricolite from New Mexico, nice for book ends, carving, etc. Make your next rock hunting trip in our yard, tons to select from as low as 25c lb. No mail orders please until November. Will see you at the convention in Sacramento June 24-25-26. Geo. C. Curtis, The Agate Man, 645 First St., Hermosa Beach, California.

NEW SUMMER LIST is ready, FREE on request. This month we offer a 1½" specimen "Shell" Lepidolite (very rare) and a 1½" specimen Fibrous Pink Tourmaline (not gem) both for \$1.00 postpaid. The Erskine Collection, 307 Rosemont St., La Jolla, California.

FIFTY MINERAL SPECIMENS, ¼-in. or over, boxed, identified, described, mounted. Postpaid \$4.00. Old Prospector, Box 21B239, Dutch Flat, California.

AGATES—Escadillo, Cameo, Golden, Red and Golden, all outstanding and scarce. Palm, highly colored Arizona wood. All 15c inch, \$1.00 pound. Send for list of other materials. Postage, please. Sequoia Gem and Mineral Shop, 321 W. Tulare Avenue, Visalia, Calif.

BRAZILIAN QUARTZ CRYSTALS: Good for cabinet specimens, cutting material, or piedso electric work. \$1.00 per crystal. Mail your order to Ione Malloy, 1159 San Rafael Ave., Glendale 2, California.

YELLOWSTONE VALLEY Agate cabochons for sale. Write for price list. Agate slices 25c per inch. C. T. Royels, Box C, Brady, Montana.

APACHE COUNTRY JASPER, poppy, peacock or banded; also pure green. Real cab material! \$1.25 per pound plus postage. Tucson Thompson, 10016 North Seventh Place, Phoenix, Arizona.

A TEN LB. BOX of beautiful Colorado specimens is yours for \$7.00, all different, nice size. Ask for list on other fine specimens, fluorescent and gem stones. Jack The Rockhound, P.O. Box 86, Carbondale, Colorado.

ANTHRACITE SPECIMENS: finest quality—dustless; 50c each, postpaid; about 1 in. x 3 in. Remit (no stamps, please) to William U. Inman, 2269 Dumbarton Ave., Palo Alto, Calif.

FINEST BLUE BANDED Agate, \$1.50 per lb., 60c per inch. Beautiful Petrified Wood, Multi-colored Agate, Dinny Bone, \$1.00 per lb., 50c per sq. in. Selenite, Travertine Marble, Red and Yellow Jasper, 50c per lb. Hubert's Rock Shop, Springdale, Utah.

THE DESERT RAT'S NEST: Micro-mounts, Gem Sand, Emerald, Ruby, Sapphire, Zircon, Topaz, Tourmaline, Kunzite, Apatite, Garnet, Epidote, Sheelite, Beryl, Chrysocolla, Chrysoberyl, Peridot, unmounted for shipping, all for \$10.00. Plume, Saganite, Moss Agates, Tiger's Eye slices, mixed Agate slabs, Saganite nodules, 10 lbs. cabinet specimens, all different \$10.00. Address P. O. Box 1123, or see Kizers Filling Station, 101 & F Sts., Encinitas, California.

GEM VILLAGE — Gems, Materials, Antiques. Lots for sale. Write Frank Morse, Bayfield, Colorado.

FAIRY CROSSES, 3 for \$1.10. Arizona rough gem pink agate, \$1.25 lb. California amethyst crystal clusters, \$1.10 to \$3.25 each. MARY-ANN KASEY, Box 968, Bakersfield, California.

FINE CUTTING TURQUOISE—Good quality, \$2.00; high grade, \$3.00; extra quality, \$4.00 to \$5.00 per ounce. E. P. Woods, Farmington, New Mexico.

CARNOTITE, URANIUM base ore specimens, has a strong Geiger count. These are showy cabinet specimens from the four corners locality. A few of them left at \$1.50 to \$3.00 plus postage. Also carnotite in petrified wood, \$1.50 to \$5.00 per specimen. Jay G. Ransom, Palm Desert, California.

GEIGER COUNTERS \$100 — MINERALIGHTS \$12.50. Fine mineral specimens at greatly reduced prices. Iadore Gem Company, Weiser, Idaho.

FOR SALE: Large deposit banded Rhyolite or Wonder Stone. Also mineral collection, 100 specimens, many rare pieces. John Glass, P. O. Box 255, Weiser, Idaho.

STONE CANYON JASPER—Breccia Jasper in various colors. Makes beautiful cabochons. \$1.00 per pound. Slabs, 25c per sq. in., 6 sq. in. for \$1.00. Satisfaction guaranteed. Approximate postage, please, except on orders of \$5.00 or over. Watch for our Panamint Valley Special next month. BEN & EDNA, Morton Minerals & Mining, 1901 So. Muscatel, Rosemead, California.

ALUNITE, AUSTINITE, Scorodite and Ludwigite. All larger 2x3 in. These four minerals postpaid anywhere in the United States for \$3.00. I also carry Covington Lapidary Equipment. W. T. Rogers, 1230 Parkway Ave., Salt Lake City 6, Utah.

GOLD SPECIMENS: Gold in Quartz 1x1, \$1.00; 1x2, \$2.00; 2x2, \$4.00; Calaverite, 1x1, \$1.00; 2x2, \$4.00; 3x4, \$15.00. Sylvanite, 1x1, \$1.00; 2x2, \$4.00; 3x4, \$15.00. Write for catalogue. Eckert Mineral Research, Dept. D, 110 East Main St., Florence, Colorado.

TEXAS AGATES—Five pounds selected from all locations, including plume, iris, fortification, scenic, opal assortment, etc., postpaid, \$5.00. Visit. 20 tons to select from at 25c per pound. El Paso Rock and Lapidary Supply, 2401 Pittsburg St., El Paso, Texas. Phone 5-8721.

MONTANA MOSS AGATES in the rough for gem cutting \$1.50 per lb. plus postage. Also Slabbed Agate 25c per sq. in. (Minimum order \$1.00). Elliott Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

ATTENTION ROCK COLLECTORS. It will pay you to visit the Ken-Dor Rock Roost. We buy, sell, or exchange mineral specimens. Visitors are always welcome. Ken-Dor Rock Roost, 419 S. Franklin, Modesto, California.

NEW FIND—Obsidian round eggs, good colors, 5 lbs., \$3.50, prepaid. Selling silver shop at inventory price, take trailer house in payment. Reason, rheumatism. Located on Highway 40. L. A. Hansen, 1505 E. Fourth St., Reno, Nevada.

BEAUTIFUL ARIZONA Variegated Agate, large slice, \$1.50, three slices, \$4.00. Satisfaction guaranteed. Chas. Hill, Cave Creek, Arizona.

URANIUM

Detecting Instruments, Guaranteed Geiger Mineralights, Mine Locators.

MINERAL PROSPECTING EQUIP. CO.
2200 N. Reese Place, Burbank, Calif.
CHarleston 8-4838

Please Send Latest Folder

Name.....
Street.....
Town....., State.....

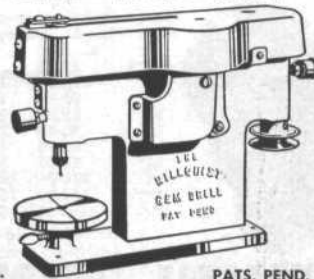


HILLQUIST Gem Drill-Hole Saw

The only fully automatic Gem Drill on the market. Drills the finest holes at high speed. Exclusive automatic ramrod action prevents core from plugging drill tube. Also saws holes, discs, buttons from 1/2" to 1-1/2" in one minute or less. Nothing else like it at any price. Write for folder to:

Lapidary
EQUIPMENT COMPANY, INC.

1545 West 49th St., Seattle 7, Wash.



PATS. PEND.

AMONG THE ROCK HUNTERS

Mojave Desert Gem and Mineral society elected the following officers at the March meeting: Dean DeVoe, president; Ralph Reed, first vice president; Faith Moore, second vice president; Charles Bruner, secretary-treasurer; Ernest McMichael, Arthur T. Ahlstrom, William Gabriel, Walt Lauterbach and George Fink, directors. Possibility of a two-day field trip to the vicinity of Tecopa and Shoshone was discussed.

Dr. Ian Campbell of the California Institute of Technology was speaker at the March meeting of the Mineralogical Society of Southern California. Campbell's talk was on "The 18th Annual International Geological Congress" held the summer of 1948 in England, and which Dr. Campbell attended. Colored slides were shown.

At the March meeting of the Yavapai Gem and Mineral society, J. H. Noggle and Ray Shire showed colored slides. Opals from the Virgin valley region of Nevada were displayed by Ike Kusisto.

Paul F. Elarde entertained members of the Chicago Rocks and Minerals society at their February meeting with an exhibition and demonstration of luminescence, phosphorescence and fluorescence. Elarde, with the aid of various violet ray and fluorescent lamps, explained the theory that light is energy. Birthday cake rounded out the evening in celebration of the society's third annual birthday.

Klamath Mineral club, Oregon, elected the following officers for 1949: Phayo Pfefferle, president; John Yadon, vice president; Mrs. Edith McLeod, secretary-treasurer. Committees were named to further activities of the club and plans formulated for a tenth anniversary celebration in April.

Specimens of giant geodes and fire opal were collected by members of the Hemet-San Jacinto Rockhound club on a March field trip to Lead Pipe springs in the San Bernardino mountains east of Johannesburg. The group made stops at Wagon Wheel Inn and at Trona where William Lewis displayed his rock collection.

Members of the Long Beach Mineralogical society brought back geodes, opal and fire opal from their February trip to Lead Pipe springs. At the regular March meeting a pot luck dinner was enjoyed, and Dr. John A. Harris presented a movie in color "Vagabonding on Wing"—picturing Cuba, the Bahamas, and pyramids of Yucatan. A trek to Cady mountains was scheduled for March 26-27.

Dr. George Green of San Francisco college gave a talk on "Geology in the San Francisco Area" at the March meeting of the Northern California Mineral society. An exchange of specimens between members took place on swap night March 26.

ROCK COLLECTORS ATTENTION—As you drive Highway 111 look for the

TRAILER ROCK STORE

I carry the finest variety of Rock and Mineral specimens in the West. REMEMBER I have NO private collection so everything is for sale.

THE ROCKOLOGIST (Chuckawalla Slim)
Box 181 Cathedral City, California

ENORMOUS AGATE SPECIMEN FOUND IN BEND, OREGON

Recently P. L. Forbes of Bend, Oregon, found an enormous agate. The specimen weighs 320 pounds. It is a single agate mass, and is not broken from a vein. The exterior shows that it was deposited within a huge cavity or vug in igneous rock, in the same manner as agates are usually formed, the hollow cavity being filled after the lava has cooled or at least partially cooled. Forbes' specimen has been sawed in half to expose the interior, which is bluish and banded. It was found near Pony Butte and may be seen on display in Forbes' wayside museum.

An auction was held at the February meeting of the Oklahoma Mineral and Gem society. Each member and guest was presented with a copy of "Midwest Geologist." Another feature of the evening was a jewelry display by Bruce Ward of Miles City, Montana, and a color film on the Pan American highway. A sound color film, "Oklahoma and Its Natural Resources," was scheduled for the March meeting along with a talk by Rolf Engleman on "General Geology of Oklahoma."

James Underwood, president of the Pacific Mineral society, was speaker at the March meeting of the Santa Monica Gemological society. Underwood's subject was "Copper Mines and Gemstones of Montana." March field trip was to the Ludlow area. New officers were to be elected at the April meeting, and the annual dinner is scheduled for May.

G. Ruegg, La Junta, Colorado, has found a new type of jasp-agate. The material is from a deposit in Colorado not previously known. Jasp-agate is often not colorful, but this material carries a liberal amount of bright red jasper in a background of colorless and pale pink agate. Green, brown and yellow shades are noted along with the reds. The material is well suited for cabochon cutting.

GEIGER COUNTERS

Sales \$125.00 up. Rentals \$5.00 per day
HANDBOOK ON URANIUM MINERALS,
By Dement & Duke.....\$2.00
MINERALIGHTS, popular "M-12".....\$34.50
Model
Send 20% with Order—Balance C.O.D.
Visit Us for Demonstration.

FRANCIS E. KNIPPER

2140 So. Main St. Santa Ana, Calif.

MOUNTINGS

18" NECK CHAIN—Sterling, doz.....\$ 3.50
Gold Filled, doz..... 4.50
No. 201-S Sterling Silver Bezel, ft..... .30
No. 201 Gold Filled Bezel, ft..... .55
No. 238 Gold Filled Bezel, ft..... .50
CLEVICES for pendants, GF, doz..... 1.25
CLEVICES for earrings, GF, doz..... 1.20
PENDANT FRAMES, with chain
22mm Round or 18x25mm Oval,
Sterling Silver or Gold filled, doz... 12.00
TIE SLIDES—Gold Filled, doz..... 6.00
CAST RINGS—Men's heavy Sterling,
assorted shapes, unfinished, doz... 9.00
Additional Items When Available

Agate Jewelry Wholesale

(Price List Available)

O. R. JUNKINS & SON

P.O. Box 1295 NEWPORT, OREGON

- New beauty in collections
- Instant identification
- Faster analysis
- Uncover new wealth

SEND
FOR
BULLETIN
D200

MINERALIGHT does all this with such ores as Scheelite, Uranium, Mercury, Zircon, Hydrozincite, Willemite and many other minerals and materials. See these completely portable lamps at your MINERALIGHT DEALER, 12 models from \$12.50 up.

UltraViolet PRODUCTS, Inc.

5205 Santa Monica Blvd., Los Angeles 27, Calif

GEMS ROUGH OR POLISHED

EQUIPMENT, BOOKS, MAGAZINES AND EVERYTHING needed by CUTTER or COLLECTOR. Send 10¢ for COMPLETE CATALOG and CREDIT SLIP worth 25¢.

The GEM-EXCHANGE • BAYFIELD, COLORADO



*Here Are The Gifts
You've Been Looking For!*

Petrified Wood, Moss Agate, Chrysocolla
Turquoise, Jade and Jasper Jewelry

HAND MADE IN STERLING SILVER

Bracelets, Rings, Necklaces, Earrings
and Brooches

SPECIALLY SELECTED STONES WITH
CHOICE COLORS AND PICTURES

Write for Folder With Prices

ELLIOTT'S GEM SHOP

26 Jergens Arcade

LONG BEACH 2, CALIF.

Entrance Subway at Ocean and Pine
Open 10 A. M. to 10 P. M. Daily

Trader in Alaska . . .

Fort Richardson, Alaska.

Desert:

I would like to get in touch with rock-hounds who are interested in trading stones of value for some of our Alaska jade.

Jerome Wayne Hensley
57th Maintenance and Supply Squadron
APO 942, c/o Postmaster, Seattle.

• • •

Don George, curator of the museum at the California Institute of Technology, was guest speaker at March meeting of the Pomona Valley Mineral club. George's subject was "The Harding Mine in Northern New Mexico." He also discussed pegmatites and various other minerals found in that vicinity. The lecture was illustrated with slides showing location of the mine, and colored pictures of the mineral taken from it.

POLISHED TURQUOISE SPECIMENS

Completely polished lumps of very fine specimen grade turquoise from several localities over the world.

Write for Price List and Approval Selection

HAROLD D. MARYOTT & CO.
Miami, Arizona

Rock Cutting - Rings Mounted to Order ROCK and GEM HOBBY SHOP

FELIX BRADDI, Owner
Stones Ground and Polished
Uranium Ore Tested - Western Jewelry
Highway 60, Box 54 Ph. Moreno 338
SUNNYMEAD, CALIFORNIA

SYNTHETIC RUTILE

MORE FLASH THAN DIAMOND
Round Brilliant Cut Gems

Under 1 carat.....\$12.50 per stone
One to 3 carat..... 12.50 per carat
Over 3 carats..... 10.00 per carat

Rough Material

3 to 15 carats.....\$1.25 per carat
15 to 30 carats..... 1.00 per carat
Full Boules80 per carat

J. C. FILER & SON
LOMA LINDA, CALIFORNIA — Hwy. 99

UNUSUAL GEMS — Very Hard to Secure

	Carats	Price
Alexandrite	6.53	\$720.00
Alexandrite	11.50	780.00
Alexandrite	2.47	430.00
Hiddenite	1.11	60.00
Hiddenite	0.78	48.00
Russian Green Garnet.....	2.45	102.92
Finest Star Ruby	8.10	1920.00
Rare Green Precious Topaz.....	2.30	55.00
Rare Blue Precious Topaz.....	70.27	168.64
Finest Cut Red Zircon.....	9.68	93.02
Rich Golden Sapphire	7.50	72.00
Fine Blue-Green		
Aquamarine	76.27	660.00
Fine Pink Precious Topaz.....	43.50	720.00
Finest Spheue	5.35	513.60

Many Other Gems . . . 50c to \$5.00
Orders up to \$25.00 sent on approval.

ERNEST MEIER

P.O. Box 302 Church Street Annex
NEW YORK 8, NEW YORK

EAST BAY MINERAL SOCIETY DIGS FOR THUNDER EGGS

Objective of the January field expedition of the East Bay Mineral society of Oakland, California, was the thunder egg locality situated on Grizzly Peak, high atop the Berkeley Hills. Members and guests had no difficulty in digging out a plentiful supply of agate-filled nodules. Berkeley Hill thunder eggs have been known for 10 years and the locality has produced steadily since discovery. They range in size from small to four or five inches in diameter. A small percentage of the eggs contain the colorful iris or rainbow agate—a real prize.

• • •

The Sweet Home Rock and Mineral society, Oregon, held its second annual election March 3, and the following officers were elected: Elton Brutscher, president; Mel Crawford, vice president; Helen E. O'Malley, secretary. Organized one year ago, the Sweet Home group now has an active membership of 76. Annual banquet was scheduled for March 17.

• • •

The Old Timers' Mineral club now has 200 members, reports Secretary John Brod-rick, Clinton, Mass.

• • •

Members of the Mineralogical Society of Arizona, who trekked to Salt River valley in February and combed the dumps at the old Hughes-Bailey mercury mine in Dreamy Draw, were rewarded with choice, medium-sized specimens. A few samples of meta-cinnabarite were found, but cinnabar was more plentiful.

• • •

Annual meeting and banquet of the Minnesota Mineral club was held in the Solarium of the Curtis hotel March 12. Dr. Clayton G. Rudd, speaker for the occasion, illustrated his talk on "Grand Teton National Park, Jackson Hole and Grand Canyon" with colored movies. April 3 was set as date for the annual exhibit.

• • •

Frederick Gros, instructor of mineralogy at San Bernardino junior college, was speaker at the February meeting of the San Geronio Mineral and Gem society. A field trip was scheduled February 20 to Orocopa mountains southeast of Indio with camp at Indian springs.

• • •

February field trip of the Dona Ana County Rockhound club was a re-visit to Foster canyon, where specimens of petrified wood were obtained—tiny chips to 6-inch log sections, some four feet long. A field trip to Oro Grande was planned for March 20 and another to Lake valley April 3. At the March meeting A. M. Perkins showed colored slides of Mexico and slides of cross-sections of agate and other native stones. He also discussed the geological formation of Kilburn Hole.

• • •

Kenneth F. Stager, in charge of birds and mammals at the Los Angeles county museum, showed colored slides on "An American in North Burma" at the March meeting of the Pacific Mineral society. Dr. P. A. Foster displayed a collection of uranium minerals.

• • •

February field trip of the Hollywood Lapidary society was to Rosamond. Specimens of petrified wood, rhyolite, jasper and bloodstone were obtained.

First field trip of the year for El Paso Gem and Mineral society was to Kilburn's Hole, a volcanic crater, 38 miles west of El Paso, Texas, for Olivine crystals and bombs to be used as souvenirs for visitors to the Rocky Mountain Federation convention in 1950.

• • •

At the February meeting of the Mineral and Gem Society of Castro valley, William Buhn spoke on "Earthquakes." His talk was illustrated with maps showing the California fault lines. Carl Ricks described a trip to Virgin valley, Nevada, collecting opals, and displayed a variety of opals. First show of the society was to be held March 4-5. A demonstration of gem stone cutting, polishing and faceting was to be featured.

• • •

Mineralogical Society of Utah held the regular March 1 meeting in the Geology building, University of Utah. Speaker of the evening was Walter H. Koch, who spoke on "Tin Ores and the Associated Minerals." It was decided to skip March field trips due to general weather conditions.

• • •

Harold Odle of Rollins, Montana, was guest speaker at the March meeting of Coachella Valley Mineral society. Odle showed slides on Montana scenic agate and displayed his museum collection of agates.

• • •

Omar Kerschner, member of Coachella Valley Mineral society, is proud possessor of a cluster of quartz crystals weighing 650 pounds.

• • •

March meeting of the Searles Lake Gem and Mineral society was scheduled to take place at the Trona club ballroom, with Gordon Bowser as speaker. Bowser's topic was to be "Jade." Treasurer Eddie Redenbach announced at the February meeting that \$636.30 had been donated to the Community Chest, making a total of \$4,563.90 for the past four years.

• • •

M. J. Stickles, founder and director of the Pioneer Lapidary and Metalcraft school at Loveland, Colorado, passed away February 20, following several months of ill health. Stickles first became interested in lapidary work while convalescing from an injury sustained in a fall from a water tower.

Mojave Desert Gem and Mineral Shop . . .

On Highway 91, 11 Miles East of Barstow
One Mile West of Yermo, California
E. W. Shaw, P. O. Box 363, Yermo, Calif.

NEW!

For the Lapidary

The BE-AR Arbor, ball bearing, has a 3/4 by 9 1/2-inch shaft. Sturdy, compact and with patented snap-on lock for drum and disc sanders. Comes equipped with three aluminum 8 by 2-inch drum sanders. Disc sanders extra.

COMPLETE, \$27.50

We also have—
ORCUTT FACET HEAD.....\$ 77.00
ORCUTT HEAD AND LAP UNIT 123.50
(Literature Available)

Highland Park Lapidary Equipment
Perry Trim Saws and Perry Drills
Lapidary and Silvercraft Supplies
Shipping Charges and California Sales
Tax Extra

S-T GEM AND MINERAL SHOP
6924 Foothill Blvd. Tujunga, Calif.

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

We have sent out about 500 reprints of the now famous Nellie Glover letter which appeared in *Desert* in April, 1946. The letter told how a person could get started at gem cutting. We did not hear from Nellie Glover again until recently, when she wrote:

"I have intended writing you many times since I wrote that dumb letter in April, 1946. First I want to thank you from the bottom of my heart for your kind letter and advice. I have learned much since writing you before but I have a lot of fun and am anxious to learn more.

"After reading the letter in December *Desert Magazine* and finding someone else as dumb as I was I feel better. I bought several books on gem cutting, got a machine and used my 1/4 H.P. motor and a lot of grits, powder, etc. With your letter before me I sat down to work. I wore my fingernails down as well as the stones and got my hair full of grit and oil and made a fine mess. At first my friends looked at me with pity and backed out of my shop—but not now! They all hint that they would 'just love a pin or ring out of my agate and petrified wood'. I have trouble making both sides of a stone the same thickness and alike. I do not know anyone interested in gem cutting and I am sure I would learn faster if I could see it done."

Yes, Nellie, you could learn a lot faster if you could see it done. But you will never have the fun again that you have enjoyed by turning out your lopsided cabochons by trial and error. The best cooking I have ever eaten was done by cooks who never saw a cooking school. That kind of a cook does something to food that is usually magic. It's like the experience a friend of mine had in Biloxi, Mississippi, where someone offered to take him for some real grub. He was frankly disappointed when the place was just an ordinary restaurant run by a colored woman who made beef stew. But he never tasted such stew in his life and he felt guilty about underrating the place. He asked the mammy just how she made that stew. She said she didn't really know, that she "just fixed the taters and fixed the meat and then she threw herse'f right into it."

I think that people who just throw themselves right into it have the most fun cutting gems. That is the way all of us had to do when this department was started in the August, 1942, issue. We have been experiencing this lately in faceting. After acquiring nice shiny fool-proof equipment we set out to facet. We selected the biggest piece of smoky quartz in our collection of material and started in. "No, no," said an old timer, "you should do a small stone first." "How come?" we replied skeptically, "it's no more work to do a big stone than a small one—and we hate small stones." We found out, after some three months, four days and ten minutes, that an 80-carat emerald cut gem does take a little time and presents many problems. We still haven't done much faceting because of lack of time but what we have done has been fun because we're finding things out for ourselves.

It has been our experience that the steady

est amateur lapidary, who maintains his enthusiasm through the years, is the fellow at the wide spot in the road who never attended a society meeting in his life and who knows no one else who is doing gem cutting. The society man who attends society meetings regularly soon learns the quirks fast, readily becomes accomplished, produces a lot of stones in a short time—and then joins a camera club. In our case we spend so much time writing about gem cutting, and reviewing what others write about it, that we have no time left to cut anything. Somewhat like the preacher who is so busy burying, baptizing and marrying folks that he hasn't time to say his own prayers or to "practice what he preaches."

The thing we have been trying to impress upon people all these years is that gem cutting is not difficult, is not necessarily expensive, is very rewarding because it enables people to revive their Yankee instincts and ingenuity by doing something with their hands. We just hope it never becomes too easy. What fun is there, or what pride of accomplishment, in preparing a chocolate cake in a few minutes with a package of cake mix? We want gem cutting to "taste good," and it has tasted good to Nellie Glover.

...

One of our steadiest correspondents, who prefers strict anonymity, has given us a method of making "snake eyes." This is the name used by gem dealers and jewelers to designate tiny round stones used as eyes in animal and insect designs in gem stones. To the beginner, the thought of cutting a matching pair of garnet eyes, not to mention a dozen, is hopeless.

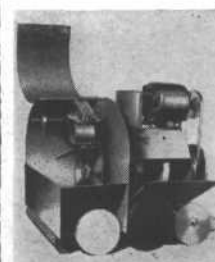
Here is an easy way. Get some tubing from a jewelry supply house. "Hinge wire" is usually too thin in the wall. Ask for clock and watch maker's "pivot pushing" tube of various sizes. It is made in both brass and nickel silver. Such tubing is made in 6-inch lengths and is perfectly straight, with thick walls. But the hole is sufficiently large to offset the dead center of a solid bar. Silver wire can be used but it usually is made in such lengths that it is coiled and difficult to straighten. Select a wire of the approximate size of the eye, re-shape the end of a twist drill to the dome shape desired, be it thick or thin. Counter-sink the end of the wire or tube, cut off a piece about 1 inch long, insert it in a drill chuck on a motor shaft. For a dop stick use a thin stiff stick such as a meat skewer or a stick from a candy sucker. Sharpen a point on it the size of the eye, dop the stone and grind. The principle is exactly the same as sphere grinding except that you have half a sphere on the end of a stick. For the smallest sizes use grit No. 320 to 400. No sanding is required on such material as opal, turquoise and other soft stones.

The Lapidary Journal

A National Magazine for the Gem Cutter
Collector and Silversmith

Some back issues available at 50c each.
Subscription \$2.00 per year (6 issues)

P. O. Box 1228 Hollywood 28, Calif.
LELANDE QUICK, Editor and Manager



RX-47

**A Complete
Lapidary Shop
in One
Compact
Machine**

The most practical
ever devised for
gem cutting and
polishing.

Send for Circular A

Price, Less Motor and Saw Blade
\$157.50 F.O.B.

RX LABORATORY

1317 Seaman Ave. EL MONTE, CALIF.

GORDON'S

GEM AND MINERAL SUPPLIES

"Dependable Lapidary Equipment"

Write for Our Price List

**1850 E. PACIFIC COAST HIGHWAY
LONG BEACH 6, CALIFORNIA**

**BEFORE YOU BUY ANY LAPIDARY
EQUIPMENT—Send for our**



BIG, FREE

CATALOG

32 Pages packed full of helpful Lapidary Instructions...Should be in every rock nut's library.
Plus complete information on the famous Hillquist line of Lapidary Equipment including Hillquist Compact Lap Unit, Hillquist 16" Rock Saw, Hillquist Trim Saw, Hillquist Auto Feed, Hillquist Gem Drill & Hole Saw, Hillquist Facetor, Hillquist Drum Sanders & Hillquist Diamond Saws

Send NOW to
Lapidary EQUIPMENT CO.
1545 W. 49 ST. • SEATTLE 7, WASH.

"NATION'S LARGEST MFGRS OF FINE LAPIDARY EQUIPMENT"



By RANDALL HENDERSON

ONE morning recently I was out along the highway near Salton sea, hoping to find a desert lily in bloom. The lily bulb grows deep in the sand and it flowers only at long intervals—when heavy rains come to the desert. It had been many years since I had seen this lovely flower in bloom.

I found a place where they were growing, but it was too early in the season. There were many buds, but no blossoms had appeared. An extra large flower stalk caught my attention, and there at its base was a penciled note on a piece of tablet paper, weighted down at the corners.

"Please do not pick this lily as I am painting it."

The message was signed by an artist I do not know. But I hope those who came this way respected her wishes, and that the painting was finished, for it is only on canvas or on camera negatives that the beauty of this rare desert flower can be preserved during the long intervals when the bulb remains dormant.

• • •

This season's exceptional wildflower display is bringing thousands of motorists to the desert every week. For a majority of those who come, it is enough merely to see the dunes and bajadas spread with a colorful pattern of blossoms. But there are always some who feel they must gather an armload of flowers to take home with them.

We folks who live on the desert wish the visitors would leave the blossoms where Nature planted them. With rare exceptions desert wildflowers wilt and fade within a few hours after they are picked. Domestic flowers are grown to bring beauty into the home. Wildflowers belong out on the dunes and mesas and among the rocks—where you and I and all who come may share the enjoyment of their splendor. When they are carried away by thoughtless visitors, the seeds which would contribute to another year's display are lost forever.

Not only the flowers, but all the things that live and grow on the desert need what protection you and I can give them. The charm of the desert country involves more than beautiful sunsets, pastel-colored mountains, fantastic rock formations and clean air.

No less important than these things are the plants and animals without which this land would be a rather drab place. Through countless ages the flowers and trees and mammals in this arid region have survived in the face of terrifying obstacles. They are symbols of courage—and courage always deserves respect.

It is depressing to read in the newspapers that hunters in Inyo county are out killing wild burros, that a chamber

of commerce on the Mojave desert is holding an annual desert tortoise race for which scores of these harmless reptiles will be brought in from their native haunts and herded together for a few minutes of amusement, and then left to shift for themselves in a strange if not unfriendly environment.

The newspapers and chambers of commerce are active in the promotion of desert travel—but in their role of leadership they also have a responsibility for the preservation of the things which lend fascination to this region—the scenic and historic landmarks, the waterholes, the plants and trees and animals—yes, and even the reptiles for there are 10,000 harmless little creatures of the reptile world for every one that carries venom. And even a sidewinder will do no harm if it is left alone.

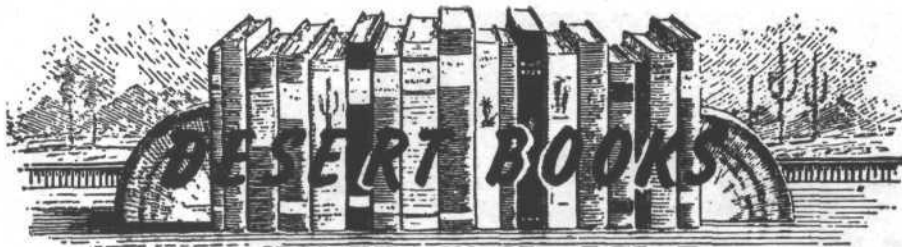
• • •

Last year the U. S. Forest Service initiated the experiment of charging a nominal fee to campers who make use of the public camp grounds, of which the Service maintains 1,100 in California alone. The fee was charged at four of the heavily used camps last season, and this year the number will be increased to ten. The charge, according to Forestry officials, is for use of the facilities, not for entrance to the camp.

Since the fee amounts to only \$3.00 a week for a party not exceeding six persons, it will not work a serious hardship on the camping fraternity. Obviously, the new policy is justifiable only if the income from this source exceeds the cost of collecting the fees. It is only fair that the camper, rather than the general taxpayer, should be assessed for the maintenance of public camps. But if it requires added personnel to the extent that the general taxpayer gains no benefit, then we all lose by this new policy. I hope the Forest Service will give us an auditor's report later so we may know how the program works out from the standpoint of the federal treasury.

If you are one of those who regard the fee as objectionable, I will remind you that out here on the Great American desert there are a hundred thousand clean cozy camping places where you can spread your bedroll for a night or a week without the necessity of buying an admission ticket. Of course you will have to rustle your own wood and water—but those little chores are fun for those spartans who really love camping.

Out here on the desert we charge no camping fees, but we do make one request: Please bury the tin cans and burn the waste paper. Leave your camp as Everett Ruess, the desert artist and poet, would have left it. Everett wrote: "Where I go I leave no sign."



THE WINGED SERPENT PRESENTS POETRY AND PROSE OF INDIANS

To the American Indian the singing of songs and the telling of tales is seldom a means of mere spontaneous self-expression. With the chanted word the singer aims to exert a strong influence and to bring about a change, either in himself or in Nature or in his fellow beings. He relates the myth of creation, ceremonially, in order to save the world from death and destruction. Above all, it seems that the word, both in song and in tale, was meant to maintain and to prolong the individual life in some way or other—to cure, to heal, to ward off evil.

"I hold my word tight to my breast." So spoke the old Navajo. The word, indeed, is power. The concept of the word as Creative Potency lives on, even in the simplest song of hunting or of harvest, of battle, love, or death. A considerable number of songs of the Indian can be understood only from this firm belief in the word's power to bring about the desired result upon which the singer has fixed his mind.

The Winged Serpent—An Anthology of American Indian Prose and Poetry, edited and with an introductory essay by Margot Astrov, presents the American Indian as "an outstanding poet, as a singer of exquisite songs, maker of sublime prayers or dangerous spells, and judicious teller of tales and mythic stories." The anthology is a collection of translations.

The John Day Company, NY, 1946, 366 pps., index, biblio., \$3.50.

• • •

BASIC MINERAL INFORMATION FOR THE NEOPHYTE ROCKHOUND

Dana's Minerals and How to Study Them was originally written by Edward S. Dana for the amateur mineralogist. In the new revised third edition, Cornelius S. Hurlbut Jr. has retained that approach, and gives to the beginner a knowledge of mineralogy that will greatly increase his enjoyment of it.

The book begins with a definition of the mineral as a naturally occurring chemical element or compound formed as a product of inorganic processes. The subject of crystals is covered—their nature, symmetry, irregularities, groups and systems. Physical and chemical properties of minerals follows with identification tests. The book concludes with a series of determinative tables for identifying the various minerals.

In revising the book, Dr. Hurlbut has completely rearranged and rewritten the chapter describing the mineral species. Instead of grouping together the minerals that are compounds of the same metallic elements, he arranges them according to the almost universally accepted chemical classification.

Of special interest are the suggestions for starting a well-rounded mineral collection. Two appendixes are given, one listing the common minerals according to prominent elements and the other indicating the minerals which are most important for a small collection.

John Wiley & Sons, 440 Fourth Av, New York 16, NY. January 1949, 323 pps., 384 illustrations, \$3.90.

STORY OF EARLY RANDSBURG MOJAVE DESERT MINING CAMP

"The family arrived in Randsburg when the camp was still mostly housed under canvas, and when guns still formed a legitimate article of dress. That was in 1896," writes Marcia Rittenhouse Wynn in *Desert Bonanza*.

Randsburg lies in a range of sagebrush mountains, just off the Searles Lake borax road leading toward Death Valley from the town of Mojave. Several other mining towns are located within a five-mile radius—Johannesburg, or Joburg, as it was called in the early days, was an offspring of the general excitement of the period. Atolia dates back to 1905, and was California's first important tungsten camp. Red Mountain, first named Osdick, was the scene of the great silver strike. This section of the Mojave desert forms the center of Southern California's richest mineral belt. Its camps had colorful and diversified mining careers with three separate bonanza periods marking the district's growth and decline.

Born of gold in 1895, Rand camp was boasting a population of 1500 by the end of 1896. Tungsten, at first thrown aside as "that damned worthless white stuff", came into the national limelight during World War I. At the close of the war the production of both tungsten and gold sharply diminished and Randsburg was doomed to become a ghost town. Then came the silver bonanza.

Randsburg is one of the few early day mining towns in California's southern desert country to survive the years. Today, Randsburg is still the Big Burg of the area, and perhaps—as the old-timers used to say, "Something else will come along. Can't ever tell about the desert."

Historical highlights, anecdotes, and personal reminiscences of the Rand mining country fill the pages of *Desert Bonanza*. The author, Marcia Rittenhouse Wynn, born

and raised in the country of which she writes, has an intimate knowledge of the camps, and their miners. The book's 285 pages contain fifteen old photographs of Randsburg during the town's first bonanza years. The author has prefaced her story of the Rand camps with an introduction to the first mining operations to take place on the Mojave desert, which date back to the early 'Sixties. Interesting notes on early borax mining are interwoven with accounts of the desert's more precious minerals.

Desert Bonanza is rich in the flavor of boom camps—and historically important.

M. W. Samelson, publisher, 3630 Eastham Dr., Culver City, California, 1949, 285 pps., photographs, sketch map, glossary of popular mining expressions. Limited first edition \$4.00.

• • •

CALIFORNIA HAS MORE THAN 100 IRON ORE DEPOSITS

During World War II, attention was focused on the strategic importance of western iron deposits. Two federal agencies of the Department of the Interior, the Geological Survey and Bureau of Mines, undertook concurrent, cooperative investigations of California iron resources. *Iron Resources of California*, Bulletin 129, prepared under the direction of Olaf P. Jenkins, Chief of the Division of Mines, contains sixteen individual articles contributed by various authorities on the geology and iron-ore resources of the state.

Deposits in the Eagle Mountains account for at least one-third of the total reserves; none of the other known California deposits is of comparable size. Large-scale exploitation of the California deposits began in 1942 concurrently with the construction of the Kaiser Company's Fontana steel plant. The future economy of the Fontana plant is to be built upon production from the Kaiser-owned Eagle Mountain mine.

Iron Resources of California covers in detail descriptive matter concerning all of the known iron-ore deposits of importance in California. Various reports on the subject have appeared from time to time, but no complete assemblage has ever been published before.

Division of Mines, Olaf P. Jenkins, Chief, Ferry Bldg., San Francisco, 1948. 304 pps. Index, bibleo., maps; geologic, topographic, magnetic, index, sketch. Photos, sketches.

THE INVERTED MOUNTAINS

Edited by Roderick Peattie

Another volume in the American Mountain series—of mountains that go not up but down. GRAND, BRYCE, ZION CANYONS—never fail to weave a spell about the visitor.

Weldon F. Heald writes of riding Grand Canyon rapids.

Edwin D. McKee describes adventures afoot and in the saddle.

Harold S. Colton tells of Indians past and present of the canyon region.

Many magnificent and unusual photographs.

Postpaid to You — \$5.00 . . . California Buyers Add 2½ Percent Tax

DESERT CRAFTS SHOP

Palm Desert, California

TRITON GIVES YOU AN EXTRA MARGIN OF SAFETY BECAUSE IT **LASTS LONGER!**

"MOTORS ARE MY BUSINESS,"
SAYS **DANNY OAKES,**

1947 PACIFIC COAST RACING
CHAMPION AND HOLDER OF THE
AMERICAN RECORD OF 141 MILES PER
HOUR FOR CLASS E TYPE MIDGET
RACERS. "I USE TRITON IN MY
CAR BECAUSE I KNOW IT WILL
STAND UP LONGER, AND THAT
MEANS BETTER ENGINE
PROTECTION."

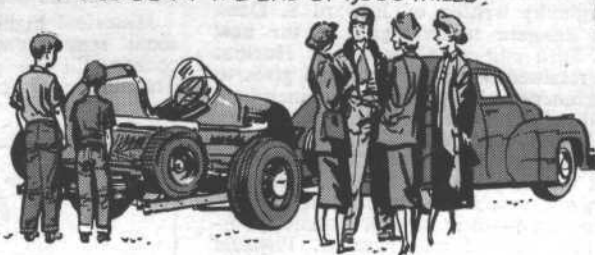


HOW DOES TRITON PROTECT AGAINST ACID?

ACIDS ARE FORMED BY OXIDATION OF OIL. TRITON CONTAINS A SPECIAL, PATENTED COMPOUND THAT PROTECTS YOUR ENGINE AGAINST ACID FORMATION SO COMPLETELY THAT THE OIL WILL SHOW A LOWER ACID CONTENT AFTER MONTHS OF OPERATION THAN NON-COMPOUNDED OILS DO AT THE END OF 1,000 MILES!

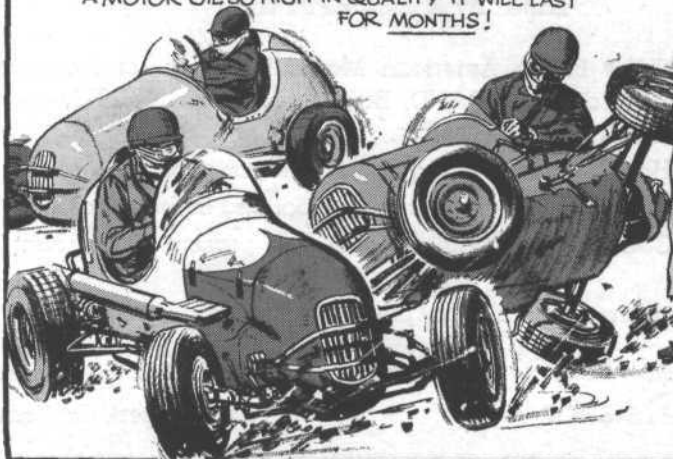
WHY DOES TRITON **LAST LONGER?**

A RICH, PURE 100% PARAFFIN-BASE STOCK, CAREFULLY PROCESSED BY THE MOST MODERN REFINING EQUIPMENT, GIVES TRITON ITS BASIC STRENGTH AND DURABILITY. TO THIS STOCK ARE ADDED PATENTED COMPOUNDS, WHICH RETARD ACIDITY, SLUDGING AND CORROSION AND CLEAN YOUR ENGINE AS YOU DRIVE. THIS COMBINATION PRODUCES A MOTOR OIL SO HIGH IN QUALITY IT WILL LAST FOR MONTHS!



WHAT ABOUT **DIRT AND SLUDGE?**

WITH TRITON, DARK OIL MEANS A CLEAN MOTOR! TRITON HAS A DETERGENT COMPOUND WHICH CLEANS YOUR ENGINE AS YOU DRIVE. LOOSENED DIRT AND SLUDGE ARE KEPT BROKEN UP IN FINE PARTICLES AND HELD HARMLESSLY IN SUSPENSION.



**UNION OIL
COMPANY**
OF CALIFORNIA



Notice: Triton is now sold by many independent dealers and garages as well as regular Union Oil stations. If your particular dealer doesn't carry Triton, ask him to stock it for you.